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PRINCIPAL CONTENTS.

American Railroad Journal.

Saturday, November 27, 1852.

No. 21 TOKENHOUSE YARD, LONDON, *November* 1, 1852.

Dear Sir: In reply to your enquiry respecting the late, the present and the probable future price of iron and other articles, which have risen so much in this country, I beg to state as follows, viz:

Pig iron, free on board in Cardiff and Newport—the great shipping ports in Wales for this article, is now at.....£3 7 6 per ton.
The price in April last before any advance took place, was..... 2 5 0 "
Welch merchant bar iron, free on board is now at..... 7 2 6 "
In April, before any advance, it was at..... 4 5 0 "
Railway bar iron was in April, before any advance..... 4 5 0 "
Now it is very firm for cash free on board*..... 7 15 0 "

In London, the price of bar iron is usually £1 per ton higher than in the shipping ports of Wales, to pay the expenses of freight, insurance and other charges. The iron from Staffordshire and other Midland counties being of better quality for many purposes, though, not for rails, is usually £1 per ton higher than Welch merchant bar iron.

In Glasgow, which is the great market for Scotch pig iron, the price in May last, before any advance took place, was.....£1 16 0 per ton.
The present price of this article is 3 0 0 "

This article being smelted with *hot* blast, is very fluid and easily melted, and is considered too tender and too frangible for heavy castings, but when intended for light castings it answers perfectly well, and, when mingled with the tough pig iron of Wales and other parts of England and the United States, it does very well for strong castings. The production of Glasgow pig iron is got up to the enormous amount of 700,000 tons since 30 years.—About 1820 the production did not exceed 25,000 or 30,000 tons. Before the advance in railway bars, in April last, the Welch iron masters were glad to take American railway bonds in payment for rails—they took a great deal of trash—and I fear will regret it hereafter, but since the great advance in price nothing but cash, no matter how respectable the railway bonds may be, will be now taken, and some of the sellers require a deposit of £1 or £1,-10 per ton at the time of taking the order. There is a wonderful change. In the first 4 months of this year it was a great favor to *get* an order for rails, *now* it is a great favor to accept one. The iron masters lately so eager for orders, are now indifferent, and most exacting in their terms of payment, delivery and other conditions. "You enquire the cause of the great advance in iron. There are several causes. 1st, The late low price continued for several years has stimulated consumption. 2nd, The great abundance of the American Cotton crop, added to the very low price of food, and to the extraordinary influx of gold from California and Australia, have unitedly given an impetus to trade and enterprises of every description, which causes a most extraordinary demand for iron, which is the article latest in feeling any depression in trade, and always the first to feel the advantage of improvements in trade, and continues the longest to profit by the activity of general trade. This is naturally to be supposed, from the fact, that iron is the article most promotive of the civilization and progress of modern Nations, and is the most indispensable article after clothing and food. The objects for which the greatest consumption of iron has recently taken place are in ship building, house building and railways.

I am sorry to say that Great Britain has a decided advantage over France and the United States in the cheapness of iron and coal, which enables her to construct and navigate steamers, principally screw propellers, with an economy that will throw our two nations into the shade, unless we in America can improve our manufacture of iron so as to bring it down to nearly the same level in price as in England. As evidence of the increase of iron in ship building, I will mention one or two facts. In April last I was offered ship (iron) plates at £6,-10 per ton. To-day, the same article cannot be bought under £10,5 per ton. In the Clyde (say at Dumbarton, Greenock, and Glasgow,) there were 247 steamers built in the last 7 years, of which only 14 were of *wood hulls*, whilst 233 were of iron hulls. Out of the 247 there were 141 *side wheel* steamers, and 106 screw propellers. The tonnage of wooden was 18,331 tons; of the iron steamers it was 129,273 tons. The above facts related to the time up to the 31st December, 1851, but since the 1st of January, 1852, there were 73 steamers built or now building in the Clyde, of which only 4 are of wood, and 69 are of iron, whilst the proportion of screws to *side wheel* steamers is as 43 to 30. Wooden hulls irrespective of cost of engines, boilers and machinery, and of all furnishings which are the same for both wood and iron, cost £14 per ton. Iron hulls, as above, cost £12 per ton. The port of Sunderland launched 87 vessels, of 33,765 tons, in the last six months, most of which were *iron hulls*, whilst New York launched only 33 vessels, of 22,245 tons, and probably not one of them was of iron. This fact will tell against American navigation before long. *Iron hulls* are much lighter, and consequently more buoyant and draw less water, they are more capacious, more strong, more durable as well as less in first cost. Lately there is a mode of preparing the iron adopted, which prevents barnacles and sea weeds from growing to the bottoms of *iron hulls*.—This greatest of difficulties in regard to iron ships being overcome, there is no question that iron (in England) will supersede timber ships, and I dread the supremacy it will give England over America.*

Next, as regards the consumption of iron in the construction of houses. The use of girders, columns, posts, of cast iron, and of iron window sills and frames, stairs, railings, etc., and of iron for other

* This article, rails, cannot be bought under £8 per ton to day, for cash, against bill of lading, and the manufacturers talk of its getting up to £10 per ton, before a great while.—November 5, 1852.

* I know timber ships can be built cheaper in America than timber ships can be built in England, but still the very great superiority of iron ships over timber ships will give them a preference.

parts of houses, as well as corrugated iron for roofs, etc., is becoming very general. Indeed, in large buildings of every description iron is almost superseding wood, being preferred on account of its lightness, durability and non-combustible nature.

But the grand consumption of iron is for railways.

In Great Britain, besides the rails required for new roads, it is estimated that at least 400 tons *per diem* are required to replace the old rails which are taken up and superseded by much heavier rails.—The original rails on the Liverpool and Manchester railway were of 40 lbs. per yard, now they are about 90 lbs. per yard, and all the rails now being laid down will be upwards of 85 lbs. per yard, and on towards 112 lbs. per yard, and even 149 lbs. per yard for saddle rail, as a maximum. Instead of wooden sleepers and cross-ties, those of iron are substituted. In the United States for the 2,500 miles of railway building the present year, at 200 tons per mile, there ought to be an export of 500,000 tons of rails, to say nothing of the iron required for locomotives, tenders, wheels, axles, and other parts which is generally made in the United States. From Russia a single order, viz: for the St. Petersburgh and Warsaw railway, for 153,000 tons, has been given out. Of this quantity 140,000 tons will be of rails, and 13,000 tons of chairs, spikes, etc.—For Germany, Italy, Spain, Denmark, Sweden, Norway, Russia, Hindostan, Chili, Peru and Brazil, the orders for rails as well as locomotives, tenders and all other furniture for railways, must be executed in this country, and the demand for iron from these countries has increased wonderfully within 6 months, and likely to be very much extended.—With these facts before us, I may say there is no prospect of an early decline in the price of iron, but on the contrary, a further advance is expected.—Besides, wages are advancing and workmen are diminishing. No less than 6,000 of the best iron men of Monmouth and Glamorganshires, left for America and Australia in the last 12 months. The best workmen—the most sober—the most industrious—the most enterprising are generally the emigrants, and their fellow workmen contribute the means to their going abroad, with the view of diminishing the competition in the labor markets, and when down in the Welch iron region the other day, I was told that laborers and great numbers of good iron workmen were wanted, but could not be procured. There is always a great evil attending high wages—they are the means of diminishing production instead of increasing it. Having the ability to indulge in the national vice of intemperance, to a greater degree, when wages are high the workmen instead of devoting only Sunday and "St. Monday" to drinking and dissipation, now add Tuesday and sometimes Wednesday to their holidays. The greatest production of iron is when wages are low and demand good and steady. Then the workmen can only indulge in drinking on Sunday and Monday, and many of them not even the latter day, and of course they produce more work, have better health, and everything goes on more respectably. The only reason for expecting a diminution in the price of iron, is the present high price, and its probable advance, which invariably, in time, checks consumption in the same way as cheapness always stimulates consumption.

You enquire about the quality of the iron sent to America, the Americans neglect the best article, and for cheapness send for an inferior quality.—The English always buy the best article for themselves—our countrymen generally do the reverse. But the rails made for America in Wales, though not considered good enough for English railways, are generally speaking very tough, difficult to be broken, and are good enough, but every individual rail ought to be inspected before it goes on board of ship. The American iron masters make good rails, because they generally use Charcoal iron, and the American railway companies could get the best rails here, if they would only pay for them. The make of iron (pigs) in Great Britain, in 1852, will be about 3¼ millions of tons. I hope in the United States it will get up this year to 500,000 tons of pigs, and next year that it will be as high as it ever was—say 700,000 tons of pigs.

You enquire of other articles that have risen in price in England. There are several articles which have advanced exceedingly. An American article, turpentine, has advanced £9 per ton, within a few months. Oil, tallow, rice, timber, lead—all American articles have advanced very much. I am sorry to see that lead, which was formerly an export from our country, has been sent into the United States from England and Spain in large quantities. This is owing to the lead miners of the north west having gone off to the "gold diggins" of California. Copper, an interesting article for America because of the Lake Superior copper mines, claims more notice, copper has advanced from £88 per ton in April last, to £105 per ton to-day. The consumption is increasing exceedingly. Every narrow guage (4 feet 8½ inch) railway locomotive ought to have nearly 5 tons of copper and brass about it.—Every broad guage (7 feet) railway locomotive ought to have fully 5 tons of copper and brass about it. There are about 4,000 locomotives in Europe and the United States, and they are all daily and constantly consuming copper by burning out fire boxes, etc. So in all the steam engines and steamers, the consumption of copper and brass is very great. On board of the "Prince Albert" (Government propeller) of 120 guns, the consumption of copper and brass ought to be at least 100 tons; for her propeller ought to be made of copper. The use of copper and brass for machinery for the textile fabrics, as well as for engineering purposes is very great, and immensely increasing. A great reduction in price would increase the consumption amazingly.

You enquire the cause of the advance in price of the other articles as well as iron. I think the same reason may be given as I have stated above, viz: The general prosperity of the country arising from cotton, food and clothing, being in great abundance.

You enquire also if wages have risen generally. I reply yes, and throughout all branches of business and all parts of the country,* even down to that hitherto almost hopeless being, the agricultural laborer. Emigration to America, Cape of Good Hope and Australia, is the principal cause for this advance—a blessed thing for the workmen and poor laborers if they would only be guided by the precepts of Father Mathew.

You enquire lastly "at what price for British iron would it be better for the manufacturers of the article in the United States to prepare it for themselves." In reply, I say that American iron is every way superior as a general rule, to British iron, because it is usually made with charcoal fuel, (and latterly, but partially with anthracite,) instead of coke of bituminous coal, and besides the ores used in America are generally better than the British ores, and for merchant bars and the higher qualities of iron, and especially for steel, I should say that if English common iron can be sold in the United States at $40 per ton, that for general purposes American consumers ought to pay $60 per ton in preference for American iron. I repeat that my remark applies particularly to the best sorts of iron, and not to railroad iron, for I believe the well made—the properly made—Welch rails—are as good for railroads as they need be, and it would be an extravagance to have rails made of the best American charcoal iron. The Americans ought to prevent the Swedes and Russians from sending their charcoal iron to our country—by making the same qualities as come from these distant countries, (paying excessively high freights and mercantile charges, as well as duty, and as regards Russia on inland transportation of iron from Siberia to St. Petersburg, of from 2,000 to 3,000 versts) so cheaply as to discourage importations of charcoal iron, all of which ought to be made within our own territories, which have far superior facilities and all the elements for the iron manufacture over both Sweden and Russia, but particularly the latter.—The United States ought to make the best iron in the world, and so cheaply as to exclude foreign importations. But my country, I am sorry to say, cannot yet compete with Great Britain in making *common iron as cheaply as she can*, and as the requirements of civilization and progress (particularly as connected with railways) demand. Railroad iron ought in America to be as cheap as possible, and then the American iron master will have an unlimited demand for his charcoal iron. The American iron master ought to say "*let there be no duty on English rails.*"

AN AMERICAN.

* The North British Advertiser, a great advertising paper of Edinburgh, had last week, advertisements for 80 situations vacant, whilst there were only 7 persons advertising for situations. This was never heard of before!

The Commercial Cities of the Seaboard.

Cities are congregations of men drawn together artificially—dependent for existence upon the existence of others without the city. They have been denominated sores upon the body politic; yet they perform great uses. They return value received to the country for its supplies. Being dependent upon circumstances, cities cannot be built and go on prosperously for many years without favorable locations. They demand situations contiguous to fine agricultural regions; if commercial cities, they must have water facilities for harbors of shelter, for the erection of docks and warehouses, for manufacturing purposes, and for the free use of the inhabitants. Fuel must also be found in abundance at a convenient distance, from whence it may be transported at will to supply all varieties of demand, and at trifling cost. That the food necessary to support life may find easy transport from the rural districts, channels of communication, which will afford cheap and rapid transit from country to city, are highly important. In short, as it is upon the interior of the country that commercial cities must look for the traffic which sustains them, an easy communication with it is indispensable to their prosperity. For it is obvious that cities must be built up either by commerce or manufactures, or both combined. The word commerce is here used in its most comprehensive sense, and combines all kinds of sale, exchange, trade and transport. The city, then, which has the best communications with the great heart of the country upon which it must rely for customers in these branches of business, and which, besides, possesses great

natural facilities in the way of harbors and oceanic communications, must get the best of the race for commercial greatness.

In the *Journal* of last week, there appeared an article giving some account of the inland commerce of the great interior country lying between the Rocky and Allegheny ridges, and its routes to the seaboard, together with some general statements of the amount and value of the "total movement" on some of the more important internal channels. It is the object of this article to follow up the effects of this internal trade upon the cities of the seaboard, to define in some measure the relative importance of the interior to the coast, and to look a little to the future and its requirements, in order that a continuance of past success may be secured. It may be said, and with a great deal of plausibility, perhaps, that the future will take care of itself; that the more freely trade and commerce are allowed to flow, the better it will be for all parties in the end; that each place and country will find its appropriate sphere and level, sooner or later, and therefore it were better left untrammelled and free—without training or speculation. Notwithstanding all this, however, we desire to examine a little into the past of our commercial cities, tracing their progress to the present, and discover if possible whether the results are the effects of a natural and free course of trade, or whether they may be partly attributed to the influences emanating from artificial channels constructed through the efforts and at the instance of farseeing and enlightened, though prudent, statesmen and capitalists.

Our principal commercial cities on the seaboard are New York, Boston, Philadelphia and Baltimore. These *have been* the great commercial centres of the past in this country. New Orleans and Mobile on the Gulf of Mexico, Savannah and Charleston on the Atlantic, and Montreal and Quebec on the St. Lawrence, will all deal largely with the futurity of commerce, as they have no slight effect upon its present. All the cities mentioned share largely in natural advantages. They have harbor facilities equal to their wants present and prospective. All are surrounded with lands, rich in soils, minerals and whilom forests. They are integral portions of a country in which popular institutions prevail; in which the voice of the people rules: where civil and religious liberty, and a protection of life and property are guaranteed to every inhabitant. The lands, rich in everything which attracts the eye and admiration of the agriculturist, have always been offered the purchaser at a mere nominal rate. It is not strange that with all these natural and political advantages, our country should have attracted from the old world a large population, which has assisted to develop the resources of the country, build up towns, cities and villages, and encourage both foreign and internal commerce more rapidly than ever before in any other nation. Labor was here promised a better reward than it received in Europe. Earth was cheap, and its products could at least sustain life, which was more than could always be done there. If, therefore, the United States had not grown as rapidly as they have done under all the circumstances, it would have been more cause for wonder than is their present prosperity and greatness. Her cities on the Atlantic, Boston, New York, Philadelphia and Baltimore, could scarcely have avoided becoming great, even had their efforts been exerted to such an end.

These four cities are nearly as old as the country in which they are situated. They were all among the first settlements of the colonies, and have continued steadily to advance in population and wealth from the period of their commencement to the present time. Each is situated upon a bay or river capable of furnishing anchorage for the fleets of the world, and all have more or less of natural channels of communication with the surrounding country. How have they grown, and why some more rapidly than others, is a natural question. It will be found that those have grown most rapidly which have had the best internal communication with the greatest extent of inland country.

For the present we will take them in point of population only from 1800 to 1850.

A writer in *Hunt's Merchants' Magazine*, J. W. Scott, Esq., of Toledo, Ohio, assumes that the population of these cities and their suburbs in 1800 and 1850 was as follows:

	1800.	1850.
New York	63,000	650,000
Philadelphia	73,000	450,000
Boston	38,000	42,000
Baltimore	26,614	190,000

This would show an average period of duplication for New York of 14½ years; for Philadelphia of 20 years; Boston 23 years; and for Baltimore of 21 years.

The same writer gives the following average periods of duplication during a series of census embracing a period of 60 years previous to 1850.:

	Average for last 60 years.	last 50 do.	last 40 do.	last 30 do.	last 20 do.	last 10 do.
New York	15	14½	15	13	15	12
Philadelphia	18	20	18½	16	17	12½
Boston	21	23	18½	15	20	12
Baltimore	15	21	21	25	10	13½

By these figures it will appear that although N. York still leads the rest and far exceeds any one of them in numbers, yet, Boston which, twenty years since was the farthest in the rear, in point of her period of duplication, has now arrived to an equality. During the ten years previous to 1840, we find her period of duplication twenty years, while during the ten years succeeding that time it is shown to have been but twelve. New York, therefore reduced her period of duplication in the ten years Preceding 1850 only three years, Philadelphia four and one half, Boston eight, and Baltimore five and one half. There must have been causes for these reductions during that particular period, as distinguished from previous periods in the first place, and in the second there must have been causes for the differences of reduction at the several points. It is also a matter of interest to ascertain what these causes were; whether they were local or general, results of natural influences, or the results of combined organizations of men, formed to divert the business which supports a city population from one point to another by the powers of attraction most conducive to those ends.

We have already seen that the requisites to the rapid and healthy growth of a commercial and manufacturing city are cheap food, cheap rent, cheap fuel, cheap timber, and a good harbor and anchorage of great capacity. These involve, among other things, easy and rapid communication with a large, well wooded, well watered and fertile country, which shall supply the food and lumber, the same communication with coal beds which shall furnish the fuel. Now, how are our four Atlantic cities situated in these respects?—Similarly or variously. They all have good and capacious harbors, but, considering all things, perhaps New York has the most attractive one, on account of its perfect safety, immense capacity, and great depth of water, united with its immediate connection with the ocean at a distance of only a few miles from her dock. Boston is probably next in these respects, while both Philadelphia and Baltimore, besides being farther south are situated on deep inlets or bays and rivers whose outlets to the ocean and by which sea-going craft must enter, are many miles farther south than the respective cities. This, it will be seen, causes a vessel bound to northern or commercial Europe, first, to sail considerably south of its starting point to get outside when it must retrace its steps, its destination being several degrees to the northward. In these latter days of steam and electricity, of clipper ships and caloric engines, time is an important item. In point of connection with the inland country, New York and Philadelphia not only had the best natural communications with the most extended tracts, but also the best artificial, till the actual commencement of the railroad era, when Boston led all the rest, as has been seen, in the developements of the last ten years. The Hudson and Mohawk were to New York what the Delaware was to Philadelphia, and the Susquehanna to Baltimore, and the Merrimack in some measure to Boston. Besides these principal ones were smaller streams making other districts of country tributary to each of these cities. Previous to the construction of canals, it is most probable that Philadelphia had more internal navigation tributary to her commerce than New York even. Below we give a table showing the census of the four cities as far back as we have the figures at hand.

Years	City and Co. of New York.	City & Co. of Philadelphia.	Boston.	Baltimore.
1790	33,131	54,391	18,038	13,503
1800	60,489	81,009	24,297	26,515
1810	96,373	111,210	35,250	46,455
1820	123,706	137,097	43,298	62,738
1830	203,007	188,961	61,392	80,625
1840	312,710	258,037	98,383	102,313
1850	517,849	409,045	138,788	189,038

We had partially prepared tables to follow this, showiug the foreign imports at the several ports, during the same periods of ten years, but owing to lack of the requisite data to fill them out properly, we are obliged to omit them as well as others exhibiting the value of real and personal property in the several cities at different dates. These tables, however, are not absolutely necessary to our purpose. They would only serve to show the changes in foreign import commerce. After the opening of the Erie canal, the foreign imports at New York advanced rapidly, while those of Philadelphia remained nearly stationary, fluctuating from year to year as in other portions of the country.

In reference to the table of population, let us remark, that the city and county of New York comprises Manhattan Island only; while the business of the city has built up Brooklyn, Williamsburgh, Jersey City, Hoboken, and numerous villas on Staten Island, besides contributing largely to the population of Newark, Elizabethtown, Rahway, Paterson and New Brunswick, in New Jersey, Jamaica, Bushwick, and Flushing, Long Island, Morisania, New Rochelle, and numerous other villages in the States of New York, New Jersey and Connecticut. These places being accessible by railways and steamers in a few minutes or hours, they are selected as cheaper residences by business men and laborers than can be found within the limits of the city. The same may apply to the

suburbs of Boston, and partially to Philadelphia, though the latter city and county comprises very nearly all her inhabitants. At this date, therefore, the number of people, properly inhabitants of New York and suburbs, who obtain a livelihood from the business of that great commercial centre, is not less than 800,000; of Philadelphia 550,000; of Boston 265,000; and of Baltimore 228,000. It has been urged that there were discrepancies in the census of 1850, because New York did not poll as many votes in proportion to its population, as Philadelphia, Boston and Baltimore. The statistics of emigration and naturalization account for these discrepancies satisfactorily. When it is considered that New York has a very large foreign population not intending to become citizens, their residence being merely a business one; that three-fourths to seven-eighths of all the vast emigration into the entire country land there and remain for a longer or shorter period; and finally that thousands are naturalized every year, who have had a preparatory residence previous, this idea becomes extinct.

It will also be observed in reference to this table, that from the National census of 1790 to that of 1830, Philadelphia had exceeded New York in numbers. It had also done so for many years previous to 1790. The amount of the foreign commerce of Philadelphia in those early days both before and after the Revolution, was greater than that of New York. She had by natural channels access to a greater extent of country. She was settled by a class of English, more enterprising than the Dutch settlers of New York. These facts told on her prosperity more rapidly than on New York till 1825, when the completion of the Erie canal opened to the latter city the immense forest country bordering the canal and lakes. From this moment, New York grew more rapidly; she had been gaining some since 1790, but it was not till this roadway for transportation was opened, that she made rapid strides ahead. This channel gave her the key ts the great west, and she at once became the distributor of the foreign commerce to the west. Philadelphia could go to the Alleghanies—she could not go through or over them with heavy goods. New York could go around them and thus send merchandise to, and receive the products from, the vallies of the Hudson, Mohawk, Black, Genesee, and even the Alleghany. The genius of CLINTON triumphed.—But it is very questionable whether New York would have obtained the ascendancy, even, with her superior oceanic connection, had not nature favored her vastly to the prejudice of her rival.—Even now, it was not that Philadelphia grew the less, but New York the more rapidly; not a diversion, so much as an accession, of trade.

In regard to foreign importations, allow us to remark, that in 1823 the importations to Philadelphia were $13,696,000; in 1836, $16,116,000; in 1839, $14,753,000; and in 1847, $12,145,000. New York importations though fluctuating with the general imports of the country have greatly inereased, till finally she has become the great entrepot of the whole country, the new inland country we mean, known as the St. Lawrence Basin and Mississippi Valley. The importations of Boston and Baltimore have kept pace with the wants of the surrounding country, Boston having threaded a great portion of New England with railways, imports goods to supply the increased trade developed by them. Baltimore imports the staple goods for her inland trade, but fancy goods of which she requires a smaller [illegible] she finds it cheaper to import through New York; or which is still better, purchase in that market, of importers in quantities and styles to suit. So, in some measure, of Philadelphia, Charleston, Savannah, Mobile and New Orleans. Thus we see that for some years New York has enjoyed almost a monopoly of the foreign import trade. With the export trade, however, it is not so much the case. This she has had to divide with all the above named ports, and with Quebec and Montreal also. This brings us to the railway era—say 1850 and 1851. Let us see if we can discover what is to be the effect of this new mode of travel and transportation on the great commercial cities of the seaboard.

It cannot be said that a thorough system of railways had been constructed, penetrating the west by an organized combination of continuous lines so as to affect the trade and population of the cities of the seaboard at all till after 1840, and none of them very perceptibly except Boston until after 1850. Boston, unquestionably, led all other American cities in railway enterprizes. Necessity, with her, was the mother of invention. She wanted an interest in the trade of the west to supply cheap food for her manufactories. She constructed railways to every agricultural portion of New England. She had a line of sailing packets from Albany to bring her flour, provisions and grain. She wanted more speedy transit—more reliable receipts. She constructed the Western railroad, and thereby enjoyed both land and water carriage. At Albany she connected with the New York canals. What was the consequence? Why, she gained five years on New York's period of duplication from 1840 to 1850 and placed herself on the same average ratio of duplication with New York. This was the result of adding to water facilities the system of railways. What was New York doing? Comparatively nothing. She had no finished railways except one or two to Philadelphia. She demanded more speedy means of communication with every portion of the adjacent country. She had suffered the enlargement of the canal to be stopped in 1842, apparently for the very purpose of encouraging Boston to build the Ogdensburg or Northern road.

That road stood ready to take its proportion of the surplus western trade which the New York canals could not transact more cheaply than other routes. The St. Lawrence canals were also ready to take the balance which could be taken neither by the canals of New York or the Erie railroad. Hence the increase of trade by the St. Lawrence. It was thought better by New York politicians to make the enlargement a political question, and on its appeal to the sectional prejudices of the people living at a distance from it, than to make it a question above all parties and decide it upon its merits; and New York city decided to cut her own throat by blocking the enlargement. Well, it was all right for her to be magnanimous. She could afford it. Boston was thankful and showed her gratitude by immediately placing herself in the course of the succeeding eight years upon the same ratio of duplication with New York. Since the census of 1850, Boston has opened her railway connections to Ogdensburg and Montreal, tapping the lake trade at both places; and she can carry flour cheaper from the upper lakes by either of these routes to Boston, than it can be done by the New York canals, time and insurance being considered. But, if the canals had been enlarged, the difference of cost would have been mere than one half in their favor.

Their capacity would have been increased more than three fold by the enlargement. Steam could have been used for a propelling power making an addition of at least one hundted per cent to the capacity of every ton. Both of these would have reduced the cost of transportation on a barrel of flour from Buffalo to New York to 25 cents. It is clear to see that no railway route could compete with such a channel. The time required to make the trip with a steam propulsion of say six miles the hour, would be at most four days, whereas it now requires ten and a half. Boats of double the tonnage of the present class could navigate the enlarged canal. However, it seems the fortunes of men are of more account than the interest of the State. The question of enlargement is one of cost of transportation. It is argued by some that the Erie canal can do all that is to be done—that its tonnage increases year after year. Admit it: what then. If New York can, by enlarging her canals, do the present business for half the present cost, and obtain all the surplus, or rather increase as it accrues, and do that cheaper than any or all the other routes, is it not manifestly for the interest of the State, as well as city, to do it? Be this as it may, the people of either city or state seem in no particular hurry to secure that end. Since the census of 1850, New York has also opened the New York and Erie route to Lake Erie; or at least it has commenced actual operations since that date. Two or three cross routes have also been opened from the Erie to the Central lines, and to Buffalo. The Hudson River and Harlem have been opened, together with northern and western roads, which, combined, give New York no less than ten different connections by railway with the northern route. They are as follows: one at Dunkirk, four at Buffalo, one at Niagara Falls, one at Oswego, one at Watertown or Cape Vincent, one at Ogdensburgh, and one at Montreal. From these points, traversing a portion of the distance separate routes, they reach New York by only four termini. At the commencement of 1850, New York had no continuous line of railway to the lakes, except via the New Haven and Housatonic lines, while Boston had enjoyed such a connection some four or five years. Now, New York has as many connections with the west as Boston, though the latter holds more stock and influence in *finished* western roads than the former, and thereby can influence some business, which might otherwise prefer a New York market. Both have now continuous lines to Cincinnati, Cleveland, and Sandusky, Ohio. Before the 1st of January, 1853, their connections will be formed with Chicago, and thence by two other lines with the great heart of Illinois. The effect of these connections, and others in rapid progress, upon these cities, cannot be foretold with accuracy.

Philadelphia has opened canals and railways to her mineral regions, and one state work has by railway and canal combined, climbed the Alleghanies and opened communication with the Ohio. These mountains, however, seem to divide the state into two parts; the commerce of the western flowing toward the Ohio and the lakes, and of the eastern toward the seaboard. The former finds its depot at Pittsburg and the latter at Philadelphia. But the state east of the Alleghany ridge possesses enough of mineral and agricultral wealth to constitute Philadelphia the greatest manufacturing city in the world. She has iron and coal to her hand in untold quantities. She has also all the lumber required, and what produce she cannot raise, she can easily procure from other states which are less fortunate in mineral wealth. Philadelphia has ad-

vantages in regard to cheap fuel for manufacturing purposes which her northern compeers can never have. For instance, coal is an article which can be transported from Pennsylvanian mines to Philadelphia cheaper by railway than by water, and it is the only article of heavy weight, except perhaps, stone and ores possibly, of which this is true. Cars may be laden at the mines, and without transhipment or handling be dumped in a city yard. They may be laden by machinery and unladen in a moment by dumping. As handling is the principal expense put on coal as well as all other minerals; this is an important item. New York and Boston cannot avail themselves of this saving. They must use water carriage, unload their craft by handling, and cart to yards, or otherwise establish dock-yards, which might be still more expensive. Besides this, the coal must first be carted or carried from the mines to the landing. This explains why the Reading railway can carry more tonnage of coal than her rival canals.

As we have before remarked, this principle applies to nothing else than those heavy substances which are quarried, and are handled in bulk instead of in packages; and besides which do not require transhipments if sent by railway, till arrival at destination.

We demonstrated last week to our own satisfaction, that for the transportation of bulky products, or merchandize over long distances, railways cannot compete with water carriage. It is only necessary now, therefore, to state this general reason, why the products of the west can never go east by railway, while water routes exist. Besides, being a more expensive mode of transportation to start with, a continuous line of railway between the west and east must necessarily be owned by several different companies, which will involve a great number of transhipments and cartages from one depot to another. It will be urged that they will have their depots together, their tracks of the same width and allow their cars to run "through." We have never seen this tried with success, but we believe in progress, and it may yet be accomplished. Heretofore, cars have become mixed up, or huddled together at one extreme end of the route, while at the other end they sometimes have no cars at all, at others none of their own; and again, have never been able to recover their own property during the whole season; so the whole thing ended in the breaking up of the entire arrangement. Numerous transhipments from car to car add greatly to the expense, and injure the order of the property. In order to partake largely of the commerce of the west, therefore, Philadelphia must tunnel her mountains for a spacious canal. The grades of her railways are too heavy to admit of even a comparatively large freighting being done over the mountains upon them. We incline to the opinion that Philadelphia will soon turn her attention to the full development of her iron interests, and cease striving after a commerce between which and her, nature has interposed so many barriers.

For becoming the most noted, and largest manufactory of the best quality of iron at the cheapest rates, when durability is considered, in this or any other country, we believe Philadelphia has advantages and facilities unsurpassed in the known world. In the improvement of these advantages and the full development of these resources, lies her truest and surest road to wealth. There is no other place in the explored world where water-power, iron, coal and wood, are so intimately associated with the finest agricultural regions as in Pennsylvania. We believe the mills now established in that State are capable of paying present rates for labor, and then turn out a rail at prices, which *in the end* will be found vastly cheaper than English rails at prices now asked in London. If this be so, is it not the best thing Pennsylvania can do to oraganize iron companies? is it not the best thing counties or towns in which mines are situated can do to lend their credit to such companies? and thus assist in the development of resources which contain their lasting wealth? would not such business be as legitimate as lending bonds and making subscriptions to railroad enterprizes. An immense effort should be made by Philadelphia and all Pennsylvania, in favor of their iron interests *now*, whiie prices are so high; so as to get them fairly before the public and have the merit of their iron tested before prices recede again. Such an effort properly started and harmoniously sustained and carried forward, could hardly fail of success.

New York, Boston, in short all the United States, are deeply interested in its success. England even now cannot supply our demands for iron, in addition to those of her other customers, and soon our vessels, houses, and nearly all our fences, must be made of iron. Pennsylvania has the means for furnishing that material cheaper than any other State, and to her first must they look to supply their wants. Other States may have plenty of iron ore, but they must have coal to smelt and work it, and this they can get no where else cheaper or of better quality than in Pennsylvania. In all these things Philadelphia as the great city of capital, most deeply interested, must take the lead. The influence and necessary action on the part of the State and National Governments, for the encouragement of such projects, cannot be secured till she throws her whole weight into the scale. The successful management of her iron interests are of more value to her than thousands of mints, for the mere stamping of coin. Labor bestowed on the former creates wealth; the latter only its representative.

Baltimore is very similar in its situation to Philadelphia, both with regard to its outlet to the ocean and its connections with the country west of the mountains. It is eminently a manufacturing city, and like all such when eligibly situated, it is growing rapidly. It will soon have a railway to the Ohio completed. Another railway connection with Lake Erie, via Sunbury and Erie is anticipated, by which Baltimore as well as Philadelphia is expected to profit. The important trade of Baltimore, however, has been with Maryland and Virginia east of the mountains. It has been to this trade that she has been indebted for her rapid growth—she has supplied this section of country with merchandize and manufactures in return for its tobacco and cotton. But Baltimore has a railway connection with the mines of iron and coal in Pennsylvania, and avails herself of it to the great benefit of her manufactures. Though she must continue for all time the great seaport town of Maryland and Northern Virginia, it is hardly reasonable to suppose that her foreign trade will increase very rapidly for reasons given heretofore. As a manufacturing city, however, she has the facilities for ranking next to Philadelphia in works of iron.

Upon the whole then we must conclude, that of the four Atlantic cities, New York has the natural endowments for becoming, and maintaining her position, as the leviathan of foreign commerce. That as a commercial city, Boston ranks next to her, Philadelphia third, and Baltimore fourth. In manufactures, Philadelphia has the means at her command to make her the mistress of the world; Baltimore may ably second her; while New York and Boston will both always be large manufacturers, either within their limits or in the suburbs. In this respect, we might say now that nearly all the cities of New England are suburbs of Boston; built by her capital, and manufacturing for her market. Now the question arises: Will these cities make use of the means we find in their hands for these several destinies? Will New York play her cards so as to maintain her commercial supremacy, or will she throw up her hand just at the most critical juncture in her existence? Will Philadelphia devote herself to her mines, or continue to strive for something really of less value to her, and from which nature has, seemingly, purposely debarred her? These are questions full of moment for the cities themselves to answer.

New York has her most formidible rivals for the vast increase which is annually accruing in the trade of the west, in Montreal, Quebec, Portland and Boston. The local business of the southern lines of railway terminating at Philadelphia, Baltimore, Charleston and Savannah, will give them nearly all they can do without diverting the western trade.

The excellent system of Canadian canals, however, opening the sea to lake craft, so that they may load at Chicago and discharge at Liverpool, is another matter. A line of screw steamers will shortly be put on between northern Europe and Portland during the winter months, and Quebec or Montreal during the summer. The Portland and Montreal railway will be used as a connecting link between the Canadian cities and the seaboard in the winter. But suppose lake craft do not choose to go to sea, but tranship at Quebec, they have only one transhipment, and an advantage in distance as follows: From Quebec to Liverpool via Cape Race is 2,863 miles, from Halifax to Liverpool via Cape Race is 2,466 miles, from Boston by same route it is 2,824 miles, and from New York it is 3,013 miles. With a line of good sea-going steamers from Quebec, and this difference in her favor in distance, how long will it take her to pick up from the annual increase of business which the New York canals cannot transact with as much facility and cheapness as it can be done by the St. Lawrence route on account of their limited dimensions, sufficient to sustain it triumphantly; and having obtained a foot-hold on the trade, to what extent might it not make reprisals. The St. Lawrence is a route of great capacity. The following shows the total movement of the St. Lawrence canals for a series of years:

	1848.	1849.	1850.	1851.
Tons...	164,267	213,153	288,103	450,400

This only shows the property which passes the locks below Ogdensburgh, and is supposed to be a fair representation of the business going to Montreal and Cuebec from the lakes. Here is shown a percentage of increase never equalled by the New York canals in their palmiest days. Considering the many mites which all the various routes may be able to divert, unless some method is soon adopted to cheapen transportation on the New York canals, it would not be at all surprising to see New York increase in commerce less rapidly than for sometime past, while her less favored compeers by superior enterprise and energy, raise their ratio of increase to an equality with hers.

But if, by enlarging her canals, she reduces the cost of transportation from the lakes to the sea-

board fifty per cent, we shall see an entirely different state of things. Even the St. Lawrence route could not compete with her in such an event. The following statement will show the exports of a few of the principle articles of food to foreign ports from the first of January last till about the first of November prox., during the years 1851 and 1852:

	New York.		Philadelphia.		Baltimore.		Boston.		New Orleans.	
	1851.	1852.	1851.	1852.	1851.	1852.	1851.	1852.	1851.	1852.
Flour, bbls	1,025,108	1,136,305	223,303	287,541	336,627	420,962	129,696	190,530	235,901	162,524
Pork, bbls	39,027	34,846	5,097	4,748	22,527	6,117	12,723	12,542	14,617	6,961
Bacon, hhds	4,067	2,121	867	954	472	223	1,938	3,536	1,870	731
Lard, kegs	111,282	87,001	55,353	26,280	11,147	11,305	67,549	32,238	149,650	235,918
Cheese, boxes	133,043	31,517	4,059	8,906	4,652	4,155	7,120	9,954	.....	.....

After all, it is not the foreign trade that creates the wealth of our cities. We trade with foreigners with our surplus, and procure luxuries and comforts in return, but for our sustenance we exchange among each other the fruits of our labors. A manufacturing city is therefore far more independent of foreign powers than a commercial one.

Such are some of the statements of facts in relation to the situation, progress and facilities of our Atlantic cities, and our views of their prospects and destinies. The views are entirely our own, and the *Journal* is in no way responsible for them.

N.

Ohio.

Cleveland, Columbus and Cincinnati Railroad.—The receipts for October 1852.....$95,990 96
" " " 1851..... 66,029 10

Increase.....$29,961 86

or about 46 per cent.

Sandusky and Mansfield Railroad.—The receipts for October 1852.....$37,255 35
" " 1851..... 27,890 33

Increase..... $9,365 02

Lake Shore Road.

The track has been completed between Erie and Cleveland. Cincinnati is, therefore, now in complete railroad communication with New York.

Table of Comparative Speed on the principal Railroads of the United States.

(THE SPEED BEING THAT OF THE SWIFTEST TRAINS.)

	LENGTH MILES.	TIME H. M.	SPEED P. H. MILES.
Albany and Buffalo route	328	10 15	32 00
Androscoggin and Kennebec	82	3 30	23 43
Atlantic and St. Lawrence	122	6 00	20 33
Baltimore and Susquehanna	82	4 30	18 22
Baltimore and Ohio	282	13 45	20 51
Boston, Concord & Montreal	71	2 50	25 00
Boston and Maine	74	3 00	24 66
Boston and Providence	43	1 15	30 44
Boston and Worcester	45	1 25	31 77
Buffalo, Corning and N. Y	45	2 15	20 00
Buffalo and N. York City	60	2 00	20 00
Buffalo and State line	69	3 20	20 72
Camden and Amboy	62	2 15	20 65
Canandaigua and Elmira	67	2 30	26 80
Central Georgia	191	9 15	27 55
Central Ohio	59	3 30	16 86
Champlain and St. Lawrence	47	2 30	18 80
Cheshire	64	2 30	25 60
Cin. Cleve. and Columbus	135	5 45	23 48
Cin., Hamilton and Dayton	60	2 30	24 00
Cincinnati and Hillsboro'	60	3 35	16 74
Cleveland and Pittsburg	100	5 05	19 97
Columbia and Philadelphia	82	4 15	19 29
Concord	35	1 10	29 99
Connecticut River	50	2 00	25 00
Conn. and Passumpsic R	61	2 15	27 11
Dayton and Greenville	35	2 00	17 50
Eastern	54	2 30	21 60
East Tenn. and Georgia	82	4 00	20 50
Erie	469	17 00	27 59
Fall River	42	1 25	29 66
Fitchburg	50	1 40	30 12
Fitchburg and Worcester	26	1 00	26 00
Galena & Chicago Union	92	5 20	17 26
Georgia	171	10 30	16 28
Greenville and Columbia	94	6 00	15 66
Harlem	130	6 10	21 07
Housatonic	110	5 15	20 95
Hudson River	144	4 05	35 59
Hudson and Berkshire	34	1 40	20 36
Jeffersonville	51	4 00	12 75
Kennebec and Portland	60	2 50	21 20
Lackawana and Western	50	2 00	25 00
Little Miami	65	2 55	22 33
Long Island	95	4 30	21 11
Louisville and Frankfort	65	3 40	17 46
Macon and Western	101	5 15	19 24
Madison and Indianapolis	86	4 15	20 23
Mad River and L. Erie	158	9 30	16 63
Michigan Central	278	11 05	25 27
Mich. South. and Nor. Ind	247	12 00	20 58
Milwaukee and Miss	43	2 00	21 50
Montgomery and West Point	88	6 30	13 54
Morris and Essex	44	2 38	18 48
Nashville and Chattanooga	77	3 50	20 10
Naugatuck	62	2 55	21 26
New Albany and Salem	65	3 30	18 56
New Hampshire Central	26	1 15	20 80
New Haven and N. London	50	2 10	23 15
New Jersey	87	4 00	21 75
New Jersey Central	78	4 00	19 50
New York and N. Haven	76	3 00	25 33
N. Haven and Northampton	45	2 10	20 79
New Haven, Hartford and Springfield	62	1 55	32 34
New London and Palmer	66	3 00	22 00
Norfolk County	35	1 30	23 33
Northern New Hampshire	69	2 50	24 34
Norwich and Worcester	66	2 22	27 89
Northern (Ogdensburg)	118	4 20	27 22
Ohio and Pennsylvania	134	7 30	17 86
Old Colony	37	1 45	21 15
Oswego and Syracuse	35	1 45	20 00
Peru and Indianapolis	22	1 45	12 59
Petersburg	64	3 30	18 28
Philadelphia and Reading	93	3 45	24 80
Phila. Wilmington and Balt	98	4 00	24 50
Portland, Saco and Portsmouth	51	2 15	22 26
Portsmouth and Concord	47	2 00	23 50
Providence and Worcester	43	1 50	23 46
Providence, Hart. and Fishkill	50	2 45	18 18
Rensellaer and Saratoga	32	1 05	19 63
Richmond, Fred. and Potomac	75	5 20	14 07
Richmond and Danville	65	3 30	18 57
Richmond and Petersburg	22	1 45	12 59
Roch., Lockport and Niagara Falls	76	2 37	29 05
Rutland and Burlington	120	4 15	28 02
Rutland and Washington	62	1 55	32 34
Sandusky, Mans. & Newark	117	6 30	18 00
Sangamon and Morgan	54	6 00	9 00
Saratoga and Schenectady	22	45	29 33
Saratoga and Washington	52	1 55	27 23
Schenectady and Troy	20	50	24 00
Seaboard and Roanoke	80	3 30	22 86
South Carolina	137	5 30	24 72
South Western	50	4 00	12 50
Stonington	50	2 00	25 00
St. Lawrence and Atlantic	96	4 30	21 33
Sullivan	25	1 00	25 00
Terre Haute and Richmond	73	4 25	16 60
Vermont Central	162	5 50	27 74
Vermont and Massachusetts	56	2 25	23 17
Vermont Valley	24	55	26 18
Virginia Central	104	7 10	14 51
Vicksburg, Brand. and Jackson	60	3 45	16 00
Washington Branch	38	1 40	22 72
Watertown and Rome	97	4 25	21 94
Western	200	7 30	26 66
Western Vermont	52	1 40	31 26
Western and Atlantic	140	10 00	14 00
Wilmington and Weldon	162	10 30	15 42
Wilmington and Manchester	44	2 45	16 00
Winchester and Potomac	32	2 00	16 00
Worcester and Nashua	45	1 52	24 06

NOTE.—In the compilation of the above table, the time set down is that spent by trains moving along the whole length of the road, and includes all the stoppages on the routes. The absolute running time would of course be less; but to give tables founded on such, would not exhibit the speed of through travel, which is that most interesting to the travelling public, and that which the compiler of the table has intended should be done.

The above table is taken from the "*American Railway Guide*," a work favorably known and eagerly prized by travellers, and, next to a current bill, the only passport required for a comfortable journey by railroad in all directions through the United States. We have examined many ingenious contrivances designed to acquaint forgetful passengers of their whereabouts; but the best reminder we know of for this pufpose is the last edition of the Guide.

Iron Bridges.

We announced last week that the new iron bridge across the Nashua river, near the Jackson company's Mills, was open to travel. The bridge was built by M. M. White, Esq., New York Iron Bridge company—whose business office is at No. 39 Wall street, Jauncey Court. The plan is that invented and patented by Col. Long of the Topographical Engineers. One of the bridges of Mr. White's construction received the prize medal at the World's Fair, where he had one on exhibition, fifty feet in length, adapted to railroad travel. The clear span of this bridge is 140 feet, and the entire length 150. The width is 19 feet clear of roadway, and a sidewalk upon each side 6 feet wide. The entire weight of iron is about 40 tons, all of which is wrought excepting the upper stringers, and the upright posts, upon which there is no strain, but only resistance of pressure. The braces, (which alone sustain the weight, and every one of which has been tested with the weight of 12 tons to the inch,) and the lower stringers are of wrought iron. Mathematically calculated, the bridge is capable of sustaining 100 tons equally distributed, or 50 tons in the centre. To guard against contraction and expansion by cold and heat, the bridge is set upon the masonry with a space of two or three inches at each end, to allow for expansion. Then the stringers at each end rest in four iron shoes, upon a piece of India rubber like that used for railroad car springs, half an inch thick. This, by its elasticity, allows the free play of the stringer, whatever may be the occasion, whether from ordinary travel, or expansion and contraction, without the possibility of springing out laterally, and so weakening

the structure. The whole work being of iron and acted upon uniformly, it is apparent that there can be no difficulty from this cause.

Of the elegance of the bridge, we spoke briefly last week. At an elevation of 22 feet above the bed of the river, its slight and graceful arch, with its light, gossamer-like appearance, compared with the bridges which we are in the habit of seeing, presents a most pleasing effect.

With regard to the quality of these bridges, they have been fully tested elsewhere. Upon the Harlem railroad, in New York, there is one which was built in 1847, over which there is a double track, and some 60 trains pass over it every day—sometimes the weight upon one side and sometimes upon the other, and sometimes trains meet upon it—and yet with this severe trial, it has never cost the corporation anything to keep it in repair, excepting to paint it. Another one built at Buffalo in 1849, of 160 feet span, has been equally successful.—Many other bridges have been built since then, the experiments with which abundantly demontrate their ability to stand under everything that can be brought upon them in the legitimate way of business, whether for railroads or high roads. There is also a bridge upon the Nashua and Lowell railroad, at Middlesex village, which has been in use several years.—*Nashua Telegraph.*

Baltimore and Ohio Railroad.

In little over a month this work will be completed to the Ohio, and in anticipation of this event, the board of directors have adopted a rate of tolls to go in operation when the road is opened to Wheeling. A special meeting of the directors was held on the 13th inst, and the following remarks made by the President, Mr. Swann, on the occasion, were ordered by the board to be published.—The subject is one exciting much interest among the mercantile community of Baltimore, and the views of Mr. Swann will be regarded attentively by the railroad class in the other eastern cities.

Mr. Swann said that before the final vote was taken, he deemed it due to himself, as well as the committee with whom he had acted in the preparation of the important details upon which the board were called upon to vote, to submit one or two remarks.

The subject was one of the utmost gravity. It was not surprising to him that it should have excited a deep interest in this community. Communications had appeared in the daily papers of this city, under anonymous signatures, well calculated to mislead those who had no means of knowing the facts and policy on which the committee had acted in the graduation of the toll sheet which had been submitted. He had been pained to find that in one of these a most ungenerous attack of a personal character had been made upon one of the members of this board.

All this, the President said, he sincerely regretted. If a desire prevailed in any quarter to influence the action of this board, the mode which had been resorted to, it seemed to him, was the least likely to accomplish the object.

If there were those who desired to modify the existing rates of the tariff, by the submission of facts not in the possession of the company, why not make their appeals directly to this board? Was it necessary to go into the papers for the purpose of exciting prejudice and inflaming the public mind?

The President said that he valued the good sense and intelligence of the mercantile classes of the city of Baltimore too highly to believe that they would countenance any such attempt to take the management of this road out of the hands of those to whom it had been entrusted. Suppose the board should decide to refer the whole subject of the tariff to those who are now finding fault with the report of the committee, could they hope to satisfy all?—Some had claimed that the rates upon third class articles should be reduced as low as 20 cents. Not a few had assumed that the existing rate on coal should be taken as the prevailing standard. What sort of a toll sheet would this board be able to adopt? What would become of the millions of stock represented in this road? Were not the great interests to whom it owed its existence entitled to *some* consideration?

But it seemed to be entirely overlooked, said the President, that this was a *new road*, just about to be opened to the public. It had been pressed forward with a rapidity that must in the nature of things, subject it to many drawbacks for some time to come. Six weeks might elapse after its opening before they could dispense with the heavy grade at the Pettibone tunnel. Did gentlemen know the expense of working a road in such a condition?

Would it not be the height of imprudence, with these facts staring them in the face, for the board to put down their tolls to a limit which might entail upon them in the very outset the most serious consequences? Admitting that the road, when in a proper condition for business, could work at one-half the rates which have been recommended, would gentlemen take the responsibility of incurring the risk of such an experiment? For himself he had been surprised to see gentlemen taking up this tariff as a mere abstract question, without any reference whatever to the condition of the road.

The President said that the committee had been laboriously engaged, for some time past, in making up the details of this important tariff. He was willing to take his full share of the responsibility. He believed it to be for the present a good tariff; and if official documents were to be relied upon, it placed the city of Baltimore upon a better footing than any other city on the seaboard. The committee had no object in view but the protection of *all* the great interests entrusted to their charge, and he should be degrading the honorable gentlemen who composed it, if he undertook to defend them against charges or insinuations of personal bias in the discharge of their responsible duties.

The President said that the committee understood the interest of the city of Baltimore as well as the road. They had not acted without due consideration, and a minute comparison of the rates charged upon other roads which were likely hereafter to come into direct competition with their own for the trade of the West.

They had carefully examined the toll sheet of the New York and Erie, and Central Pennsylvania roads; and they had freely conferred with those in whose judgment they were authorized to repose confidence, in graduating the various classes and rates of toll, which would be found inserted in the toll sheet submitted to the board.

The President said that he had been entirely aware that in the discharge of the duty assigned them, they would encounter the opposition of some who in their eagerness to force down rates, might overlook the fact that they were not at liberty, apart from the condition of the road, wholly to disregard their obligations to the State, the city and the stockholders, to whose generous aid the road was indebted for its existence and its ability to be useful hereafter.

The President said that whatever modifications might take place in the rates recommended by the committee, and he was ready to act whenever the experience and condition of the road would justify it, he was not one of those who would be the first to invite a deadly competition with rival works, by the adoption of mere nominal rates on this road.—He thought that the great trunk lines connecting with the West would commit a cardinal error if they adopted any such policy with a view to an exclusive monopoly at any one point. New York, Philadelphia, and Baltimore had all their local advantages. A deadly warfare of this sort could be attended with no other result than injury to these great lines. He sincerely believed that there was trade enough and more than enough for them all. He had never been the advocate of high charges on railroads. He believed that the Baltimore and Ohio railroad could maintain as low a tariff as any other road; and he was satisfied that the road had nothing to fear from rivalry. He would, however, claim a fair remuneration in the graduation of his toll sheet for those who had built the road. This he deemed to be no more than just and reasonable.

The tariff which had been recommended by the committee gave to the Baltimore market an advantage, both as to trade and travel, over any other point on the seaboard. This has been the leading object of the committee. If it did not he was willing to satisfy the mercantile classes on this point as soon as the condition of the road would justify it. He would be sorry to see any portion of the trade of the west, which we might reasonably expect to control going to any other city. Taking Cincinnati as the starting point, *the through rates* which could be made with this road, upon the basis of the present tariff, would be lower than those of any other road.

In making this assertion, the president said he was justified by the official data on which the committee had acted.

If in some of the exhibits made to the public, it was urged that by certain combinations, with canals, lakes, etc. etc., the rates charged showed an occasional advantage over those which had been recommended, it would be borne in mind that this road was not making a toll-sheet to compete *directly* with lines dissimilar in character; but with the roads which were parallel to, or immediately in contact with them, and *whose greater despatch and convenience* had heretofore enabled them to exercise a controlling influence.

In the adoption of the toll sheet submitted to the board, the committee had been compelled to move with caution, from what they knew to be the contingencies incident to all new roads. In many of its leading features the present tariff must be, to a considerable extent, *an experimental tariff.*

The working of the high grades west of Cumberland, the president said, is yet to be tested; and the general rates upon a new road for a few months after its opening, might be less advantageous than experience would justify the board in assuming at a latter period. To have prepared a tariff for this road, at the present time, without reference to these considerations, would have been unwise, and it might be highly prejudicial to the interests of the work.

The president said, in conclusion, that it was the intention and would be the duty of the board to make the facilities of the Baltimore and Ohio railroad such, in connection with her natural position, as to give the city of Baltimore an advantage over any other market. The committee claim to have done this in the tariff which they have recommended for their unfinished road; but if experience should prove hereafter that this was not the case, and that it would be necessary to make this advantage still more marked than it now is, this board, he was satisfied, would not be slow to unite in any line of policy which might be reasonably expected on the part of the mercantile community, provided they could do so, without violating their obligations to the great interests entrusted to their charge. He was the last man in this community to see any trade passing away from the city of Baltimore which *the road had the power to control.* He knew the facilities which this board would be able to offer, and it should never be said, so far as his influence extended, that the interests of the city of Baltimore had suffered in his hands. He trusted that he was sufficiently awake to promise this.

New Jersey.

Camden and Cape May Railroad.—The projected railroad from Camden to Cape May, N. J., is likely to become a reality. A meeting was held on Monday in Camden, for the purpose of considering the subject, and much interest was taken in the proceedings by all present. The attendance was quite large, and the greatest unanimity prevailed. After the meeting was organised, an able report on the construction and cost of the proposed road was read and ordered to be printed. This report, made by Gen. William Cook, Engineer, sets forth three distinct routes, each and all of which are practicable. The first is the shortest, and will pass through Woodbury, Glassboro' and Millville, a distance of 78 miles, with five miles of turnouts; and will cost $775,280. The second, by Glassboro and Carlburg, 85 miles, and the same distance of turnouts as the first, will cost $880,000. The third, by Salem, the largest town on the line, will be the most expensive—the estimated cost being $1,181,840. The engines, cars, locomotives, depots, tanks, stations on main routes, etc., will cost $120,000. From some interesting statistics given, there is every reason to suppose the road will pay, and be a profitable line. The meeting unanimously resolved to petition the Legislature of New Jersey for a charter for the road, and rem the known

energy of those who take such an active part in the undertaking, there is every prospect of the road being begun at an early day.—*Philadelphia Com-Register.*

American Railroad Journal.

Saturday, November 27, 1852.

Fencing Railways.

It hardly seems that it should be necessary to *compel* corporations to fence in such valuable property as a good railway. Perhaps there is no sort of property more liable to damage, from exposure, damage always entailing heavy pecuniary losses—and yet, in this and Western States it is almost as rare to see a railway track enclosed by a good substantial fence, excluding both men and animals, as it is to find any body to blame when an accident occurs. How many engines is it necessary to ruin—how many cars to smash, engineers, firemen, brakemen and passengers to kill; or maim and pay for, to run up losses which, had the money been expended in that manner, would have furnished an elegant and durable enclosure. We think the statistics will show that more than three-fourths of the accidents resulting from trains running off the track; or from collisions are occasioned, either directly or indirectly, by obstructions getting upon the track which would be kept off by a fence. If this is so, it is clearly the dictate of good policy, in a pecuniary view, to fence in the railways. A train is usually impedded by some obstruction on the track, and thrown behind its time before a collision occurs. A good fence, therefore, and consistent watch, would do much to save life and property. And, if an eye to their own interests will not urge corporations into this step, why not get a legislative enactment to accomplish the object. Taking this policy would place railway companies on the defensive. If cattle got through the enclosure and caused damage, their owner would be liable to the company. If men got on the track and became disabled or killed, they could not be made to pay annuities or damages.—On the whole, is it not only practicable, but a highly proper policy?

Railway Car Trimmings.

America is deservedly noted for the magnificence and luxury of her travelling conveniences. The saloons of her steamers, the drawing rooms of her hotels, and the interior of her railway cars, are the subject of the highest commendation by travellers from all parts of the world. Other countries may boast of more magnificent private residences, which are furnished in a more luxurious and attractive style; but when the comfort of the traveller is concerned, the Americans exceed all others in the gratification of every reasonable wish—and it pays too. Americans, and strangers in America, will travel by the best conveyance, the most popular, the most magnificent, the most expensive, the most comforable.

DOREMUS & NIXON, No. 21 Park Place, as will be seen by their advertisement, are offering a style of head linings for cars, of a variety of patterns, unsurpassed in beauty and durability by any in the market. Also, Paris Cotton Felt, for stuffing cushions, which is said to be superior to hair, and free from vermin, while it does not cost as much by one-half. These are patented articles, and D. & N. are sole agents. Car makers and omnibus builders are invited to examine their stock before purchising elsewhere.

South Carolina.

Northeastern Railroad.—The reports of the president and chief engineer of this road to the board of directors, shows the necessity of its construction to the commercial importance of Charleston, and the developement of the northeastern section of South Carolina.

The report of the president, D. L. McKay, presents the following details of the road and its objects. The line surveyed, commences at the South Carolina railroad, near Charleston, thence running by the straightest course to a point on the Santee canal, crossing the Santee river near Maltessee lake, passing within a mile of Kingstree in Williamsburgh district, and thence by a straight line to the terminus on the Wilmington and Manchester railroad, two miles east of James' Station on the land granted to the company. The length of the road is 103 miles, and the estimated cost, including depots and equipments ready for operation $1,240,337.

The importance of the Northeastern railroad to Charleston, demands prompt action. At every point she is threatened with diversion of her trade and travel, which, unless counteracted by this, the only means within her power, must prove disastrous in the extreme. The Wilmington and Manchester road will soon be completed, when the boat line to Wilmington will discontinued. The Metropolitan mail will then be transferred to the Wilmington and Manchester road, pass from Wilmington, via Branchville to Augusta; leaving Charleston out of the great national mail route, and carrying with it the valuable and inseparable attendant—the travel. From that moment Charleston ceases to be the thoroughfare between the north and south, and becomes a mere way-mail station. It may not be amiss here to refer to the road from Pensacola to Brunswick, in Georgia—a work which has suddenly risen to our view, and is destined to control the whole southern seaboard travel, the course of which being through Savannah, will pass thence, by the railroad to Augusta, (now nearly completed) where the traveller will meet the continuous line of railroad, via Branchville to Wilmington—leaving Charleston entirely out of his route. But I proceed to considerations of a more direct and immediate concern. The Cheraw and Darlington road which is designed to connect Cheraw and its tributaries in North and South Carolina with the seaboard, will very soon be commenced, having its terminus at the Darlington depot, on the Wilmington and Manchester road—the distance from which to Wilmington is 110 miles, with grades of fifteen feet and less to the mile. While from the same point to Charleston, via the Camden, Columbia and Hamburg road, is 165 miles, with some grades as high as 30 feet. It follows then, obviously, that the trade of the Pee Dee section of the state must be lost to Charleston; for it could not bear the charges and delays of this circuitous transportation. That 40,000 bales of cotton, at least, and every thing else that the country may produce, will go to Wilmington, while, for the same reason, the comparative cheapness of transportation, Wilmington will furnish all their supplies. To the argument that the bar off the Cape Fear is an insuperable obstacle to the advancement of Wilmington, and that she never can interfere with the trade of Charleston, we reply—that altho' large vessels cannot enter the river, the passage is perfectly safe, as is well known, for vessels of sufficient berthen to make her a formidable rival in many branches of commerce.

The value of the real and personal estate interested in its construction, is estimated at 90 millions of dollars.

The aggregate population at 210,400 and both increasing rapidly,

The number of bales of cotton produced, is 78,000.

The number of barrels of naval stores may fairly be estimated at 100,000.

The following is the estimate of income:

The average number of passengers daily on the South Carolina railroad	370
Georgia road	304
Central Road, Ga.	127
Raleigh and Wilmington road	167
We therefore conclude that we shall have 100 daily, at an average of $2 each, equal to	$73,000
Sixty thousand bales of cotton at $1	60,000
Naval stores	20,000
Up freights	50,000
The mails	12,000
Total gross receipts	$213,000
Deduct current expenses, rated at 47 per cent	100,000
	$113,000

The benefits of the road to the section of country traversed by the Cheraw and Darlington road will, it is stated in the report, depend much on the two roads terminating at the same point on the Wilmington and Manchester, thus securing a choice of markets without an additional charge for freight, or the trouble and expense of unlading and relading.

We learn the following details from the report of the chief engineer, T. Pinckney Huger Esq.

Average grubbing, grading, trestling and crossties per mile, $2535—103 miles	$261,104
Crossing Santee river and swamp	130,000
103 miles of iron and chairs	473,182
Laying down rails	36 050
Twelve wood and water stations	18,000
Station at upper terminus	4,000
Outfit, including 8 locomotives, 8 passenger, 8 mail and baggage, 50 platform cars for cotton, and 50 box cars for dry goods, etc.	138,000
Depot in Charleston	150,000
Engineering and salaries	30,000
	$1,240,337

Average cost per mile $12,042.

The chief engineer strongly insists, as an indispensable element in the stability and endurance of the rails, that their quality should be unexceptionable. The following remarks are to the point.

The generality of iron used on our roads, is of a very inferior quality, and it matters not how heavy or of what pattern your rail may be, if the iron is of bad quality, the expense of repairs to road and machinery will be correspondingly great. The English iron as ordinarily imported by our merchants, is frequently very inferior; and it is impossible to detect its inferiority by its appearance; but on being used its defects are seen. In giving orders for iron, especial particularity in regard to quality is necessary. I have heard great complaints made against the English iron, and that of American manufacture preferred.

Illinois.

Chicago and Rock Island Railroad.—The Chicago and Rock Island railroad is completed from Chicago to Joliet, and commenced operations on the 18th. At Joliet the cars connect with the morning and evening line of packets to La Salle and Peru, also with various lines of stages to Dixon, Peoria, Rock Island, etc., etc., and with the river boats at St. Louis. By the 1st of January the road will be open to La Salle, the head of navigation on the Illinois river, and to Rock Island by the first of July. Should this be accomplished, it will be one of the greatest achievements in railroad construction on record—180 miles in 18 months! Mr. Addison B. Gilmore, the former efficient agent of the New Haven road, and who was connected with it from the commencement, is now the superintendent of the Chicago road.

Peoria and Oquawka Railroad.—This road is progressing favorably. Some hundred hands are employed on the eastern and western divisions. A contract has been made for a large amount of railroad iron at low prices, and the president, Judge Mason, of Burlington, Iowa, expects to have the road in running order from opposite Burlington to Galesburg, where it will interseet the Military

Tract Central road sometime during 1853. About twenty-five miles of the eastern end of the Peoria and Oquawka road will be completed next year.

Illinois.

Naples and Decatur Railroad.—The Morgan (Ill.) Journal states that in seven months of the last year, during which almost the entire business of this road for the year was done, the net profits were $29,000, It is stated that the Illinois Central railroad company have bought this road with its privileges, and intend this fall to replace the flat with the T rail, a large amount of which is now on its way from Chicago.

Chicago Dry Dock.

The dry dock of the city of Chicago is just completed. It was commenced in July last and was built under the supervision of Francis Jordan, Esq., at a cost of $25,000. It is 306 feet in length, fifty-six feet wide at the top, and 37 at the bottom. It can be filled in two hours and three quarters, and emptied in three quarters of an hour. The size is sufficiently large to accommodate the largest class propellers and sailing vessels. The water on the blocks stands at about eight and a half feet.

New Iron Project.

It is stated that Shoenberger, the oldest iron maker in Pennsylvania, Rhey, Matthews, and Co., of Pittsburg, and a number of enterprising capitalists in New York, Boston, and Philadelphia, are organizing a company, with $1,000,000 capital, to embark very extensively in the manufacture of iron rails at Johnstown, Cambria county, Pa.

Maryland.

Mount Savage Railroad.—The Mt. Savage Iron company have an efficient force engaged in making the necessary excavations and embankments for laying alongside of their present railroad another track, from Cumberland to the western end of the "Narrows," where this railroad is intersected by that of the Cumberland Coal and Iron Co.

Kentucky.

Louisville and Covington Railroad.—The board have unanimously elected P. S. Bush, Esq., of Covington, a director, to fill a vacancy, and Isham Henderson was at the same time elected president for the ensuing year. The board stand pledged thoroughly to survey *all* routes between the termini by disinterested engineers, and to publish the plans, profiles, and reports for general distribution.

Mississippi.

Mississippi Central Railroad.—Holmes county, Mississippi, by an almost unanimous vote has approved of a subscription of $200,000 to this important work.

Not less than one and a half million of dollars has already been subscribed, and assurances, of a reliable character given, that half a million more will soon be realized.

Missouri.

St. Louis and Iron Mountain Railroad.—There was a meeting of the corporators of this road on the 4th inst. at St. Louis. Books are to be opened for subscription on the 22nd inst. The Intelligencer says:—The charter of this road is a valuable one. It not only extends to the building of a road to the Iron Mountain, but the privilege is given to extend to any point in the south or south-western portions of the state. Thus it may be extended to Cape Girardeau, or to the borders of Arkansas on the south-west. The charter is a liberal one, and we look upon the franchise as very valuable.

Kentucky.

Lexington and Frankfort Railroad.—The earnings of the Lexington and Frankfort railroad for the six months ending Oct. 31st, were $40,276 74, an increase of about 11 per cent over the corresponding period in 1851.

Michigan.

Detroit, Monroe, and Toledo Railroad.—Parties are now engaged in the location of this road, preparatory to the commencement of the work as soon as possible after the meeting of the Legislature of Michigan, and the passage of a law under which the road can be built.

Stock and Money Market.

Money continuss in great abundance, and speculation in stocks has reached a high pitch. Our tables show a large advance upon the prices of last week. The speculative feeling which exists, though to be regretted, indicates plethora in the money market, favorable to our railroad projects, that are seeking to borrow money. There never was a time in which the wants of our companies have been supplied more liberally.

The principal public sale during the week has been of the bonds of the city of Rochester, issued to the Genesee Valley railroad. The amount offered was $100,000, for which there were bids to the amount of $455,000, averaging from 100 to 104⅜.—The loan was taken at a range of 102 16-100 to 104⅜.

Several new Banks have been started within the last few days, giving a slight addition to our banking capital. Though we may have none too much capital for the proper transaction of business, the tendency of such accessions is to farther speculation.

Railway Share & Stock List;

CORRECTED WEEKLY FOR THE

AMERICAN RAILROAD JOURNAL.

NEW YORK, NOVEMBER 27, 1852.

GOVERNMENT AND STATE SECURITIES.

U. S. 5's, 1853	102¼
U. S. 6's, 1856	110⅜
U. S. 6's, 1862	115¼
U. S. 6's, 1862—coupon	116
U. S. 6's, 1867	119⅜
U. S. 6's, 1868	120¼
U. S. 6's, 1868—coupon	120¼
Indiana 5's	101¼
Indiana 2½	61¼
" Canal loan 6's	97
" Canal preferred 5's	47
Alabama 5's	97
Illinois 6's, 1847	83½
Illinois 6's—interest	55
Kentucky 6's, 1871	111½
Maryland 6's	108⅜
New York 6's, 1854-5	109
New York 6's, 1860-'61-'62	116
New York 6's, 1864-'65	120
New York 6's, ½ y., 1866	122
New York 5½'s, 1860-'61	114
New York 5½'s, 1865	112
New York 5's, 1854-'55	108
New York 5's, 1858-'60-'62	112½
New York 5's, 1866	117
New York 4½'s, 1858-'59-'64	101
Canal certificates, 6's, 1861	——
Ohio 6's, 1856	106½
Ohio 6's, 1860	111½
Ohio 6's, 1870	116½
Ohio 6's, 1875	117
Ohio 5's, 1865	105
Ohio 7's, 1851	105½
Pennsylvania 5's	98⅜
Pennsylvania 6's, 1847,-'53	91
Pennsylvania 6's, 1879	99½
Tennessee 5's	92
Tennessee 6's, 1880	109
Virginia 6's, 1886	112

CITY SECURITIES—BONDS.

Brooklyn 6's	105
Albany 6's, 1871-1881	107½
Cincinnati 6's	104
St. Louis	96½
Louisville 6's 1880	96½
Pittsburg 6's, 1869-1871	103
New York 7's, 1857	108
New York 5's, 1858-'60	103½
New York 5's, 1870-'75	103½
New York 5's, 1890	106
Fire loan 5's, 1886	——
Philadelphia 6's, 1876-'90	109½
Baltimore 1870-'90	108
Boston 5's	103

RAILROAD BONDS.

Erie 1st mortgage, 7's, 1867	113½
Erie 2d mortgage, 7's, 1859	106½
Erie income 7's, 1855	100
Erie convertible bonds, 7's, 1871	109½
Hudson River 1st mort., 7's, 1869	108
Hudson River 2d mort., 7's, 1860	103½
New York and New Haven 7's, 1861	106
Reading 6's, 1870	93½
Reading mortgage, 6's, 1860	99½
Michigan Central, convertible, 8's, 1860	110
Michigan Southern, 7's, 1860	100½
Cleveland, Col. and Cin. 7's, 1859	122
Cleveland and Pittsburg 7's, 1860	102
Ohio and Pennsylvania 7's, 1865	106
Ohio Central 7's, 1861	96½

RAILROAD STOCKS.

[CORRECTED FOR WEDNESDAY OF EACH WEEK.]

	Nov. 25.	Nov. 18.
Albany and Schenectady	114½	112
Boston and Maine	107⅜	107½
Boston and Lowell	109	109
Boston and Worcester	105	105
Boston and Providence	89⅜	89⅜
Baltimore and Ohio	93½	91½
Baltimore and Susquehanna	30½	30
Cleveland and Columbus	127	127½
Columbus and Xenia	—	—
Camden and Amboy	150	—
Delaware and Hudson (canal)	128	130
Eastern	98½	98
Erie	95	91
Fall River	—	—
Fitchburgh	104½	103½
Georgia	—	—
Georgia Central	—	—
Harlem	73½	73½
" preferred	111½	111½
Hartford and New Haven	—	129
Housatonic (preferred)	35	35
Hudson River	79	76½
Little Miami	—	—
Long Island	46	40
Mad River	—	99
Madison and Indianapolis	108½	110½
Michigan Central	114	111½
Michigan Southern	133½	128
New York and New Haven	115	115
New Jersey	131	130
Nashua and Lowell	—	—
New Bedford and Taunton	—	117
Norwich and Worcester	53	52½
Ogdensburgh	27½	26½
Pennsylvania	48	46½
Philadelphia, Wilm'gton & Balt.	37	37
Petersburg	—	—
Richmond and Fredericksburg	105	97½
Richmond and Petersburg	35	35
Reading	100⅞	101½
Rochester and Syracuse	126½	124½
Stonington	57½	56
South Carolina	—	122½
Syracuse and Utica	133	133
Taunton Branch	115	115
Utica and Schenectady	143½	142
Vermont Central	17½	17
Vermont and Massachusetts	19½	22½
Virginia Central	—	40
Western	105½	104½
Wilmington and Raleigh	57½	57½

Railroad Lanterns.

Our readers will find an advertisement of every variety of railroad Lanterns in another page

Texas.

Houston and Austin Railroad.—The people of Texas seem awake to the importance of developing by the only practicable means, that of internal improvements, the vast and fertile domain, they possess. An association has been formed having for its object the construction of a road from the city of Houston to that of Austin. The first step they propose, is to urge the completion of a line from Houston to the Brazos river. The association appointed a committee for the purpose of examining into the route and what means can be obtained for the accomplishment of the work. The report presented by the committee is sufficiently encouraging. The cost of construction is shown to be extremely light. The entire distance from Houston to the Brazos is 53 miles, this distance according to the report is almost graded by the hand of Nature.

For the first 27 miles the prairie is nearly a perfect level, the differences in general altitude not averaging twelve inches to the mile and so general as to be entirely imperceptible to the eye. In the next 16 miles, it is estimated that the ascending grade, which is also gradual, will average a little over three feet to the mile, and in the remaining 10 miles, the descending grade is the same. The highest point of elevation, near the property of Mrs. Stevenson, is about 50 feet above the lower prairie, attained by a gradual ascent for 16 miles, from which the road again gradually descends about 30 feet to the level of the banks of the Brazos, at the rate before stated, of about three feet to the mile.

The cost of grading and preparing the road bed to receive the superstructure will not exceed $6000 per mile, or $30,800 for the whole road. The bridges and culverts must be constructed of wood until the road is completed, and stone can be transported thereon.

The cost of these is estimated as follows: Bridge across Big Cypress $5,000; bridge across Little Cypress $2,000; across Willow creek $3,000; temporary bridges across the ravines $5,000. The cost of cross-ties, chairs, spikes, etc., $113,473, or $2,141 per mile.

The following is the gross estimate:

Earth work	$30,800
Bridges and Culverts	15,000
Iron rails	199,280
Cros-ties, chairs, spikes and laying of track	113,472
Depots	15,000
3 Locomotives and tenders	25,000
3 Passenger cars	6,000
20 freight do.	6,000
10 Cattle do.	3,500
Machine shop and machinery	10,000
Engineering and agencies	10,000
Total	$464,053

It must be remarked that in the above estimate, the rails are estimated at a cost of $40 per ton, the cost of that item must be increased so as to meet the present prices of that article. The estimated cost of the New Orleans and Opelousas road is $10,000 per mile, and the report states that the Texas route is far better adapted to the construction of roads than the Opelousas. The Texas road passes over no lagoon, river, lake nor swamp, and over no creeks or ravines of consequence.

The business operations of the road at the time of its probable completion, about the 1st of January, 1854, are approximately stated from the following data. The cotton received at Houston of last years crop, which was fully one third short, was 23,000 bales, an average crop would have reached 32,666, of which one half or 16,333 would have passed over the whole length of the road, while an amount of 16,500 bales which went down the rivers Brazos and Colorado, and to Port Lavaca by wagons, must be added, making an aggregate of nearly 33,000 bales. It is supposed that half the cotton shipped from the Gulf ports of Texas is tributary to this road, and the estimated shipment for the coming year is set down at 125,000 bales. Taking 50,000 bales to be transported at $1 per bale it would yield $50,000, being from 100 to 200 per cent lower than the present prices of transportation.

The amount of merchandize paying wharfage at Houson last year ending 1st July last, was 150,000 barrels, allowing the articles free of wharfage to equal the consumption of the city, this would amount to 10,000 wagon loads averaging $40 per load, or $400,000 paid for outward freight from the city. The revenue of the road if built, from this source, is estimated for last year, at $66,000, and at the ratio of increase as exhibited by the wharfmasters returns, would be for the year 1854 $130,000. The commtttee have set it down at $100,000.

The pine lumber used in Washington and Austin counties, for building, is now hauled at an expense of from $15 to $30 per thousand. It is estimated that the demand in 1854 in the neighborhood of the Brazos at the upper terminus of the road will reach 7 million of feet. This at $5 per thousand would yield $35,000.

The transportation of corn, oats, potatoes, hides and other agricultural products of the upper counties is set down at $10,000. The way freights on merchandize, cotton and other articles is estimated at $50,000.

The present travel of passengers, exclusive of emigrants, is believed to reach 5,000 each way per annum, with an increase yearly of 25 per cent.—The committee assume that the present number will be quadrupled by the increased facilities and cheapness of travel consequent on the opening of the road. 20,000 passengers each way at $1 would be $20,000.

The European emigration to the State is estimated at 10,000 yearly—the receipts from this source is estimated at $10,000 for freight and passage.—The American emigration would not fall short of 20,000, which, at $1,50 each way is $30,000. The receipts for way passengers is estimated at $10,000. The mail service it is supposed will yield $15,000 per annum. The total gross revenue from all these sources amount to $320,000 per annum. The committee propose the following plan for obtaining the required capital:

"They believe that three hundred thousand dollars can be raised by subscription in Houston and parts of the country interested, payable in instalments, within 12 months after the 1st of January next. But suppose individual subscriptions should not exceed two hundred thousand dollars, they propose that the city of Houston subscribe to 200,000 dollars of the stock, and issue her bonds for the amount, payable in 15 years, with interest at the rate of 6 per cent. per annum, payable semi-annually at the city of New York. That the City Council provide in advance for the payment of the interest and the final redemption of the principal, thus:—pledge $12,000 per annum of the wharfage revenue, (now exceeding that sum, and annually absorbed in the construction and repair of the city's turnpike, on the route of the proposed railroad, and which will cease when this work is commenced,) to be set apart and remitted on 1st January, and 1st July, to meet the interest; let it also provide that the dividends on the stock be annually invested as a sinking fund in good State or Government stocks, and accumulate for the redemption of the principal and further authorize the railroad company to negotiate the bonds and pledge them to the purchasers as an additional security for the redemption of the principal and interest as aforesaid. With such a basis these bonds would be negotiable in New York, or any other market where money is abundant."

Ohio.

Scioto and Hocking Valley Railroad.—The completion of this road has now become a fixed fact. From Portsmouth, on the Ohio river, to Jackson, the track is prepared for the rails, and the cars are already running about one-third of the way. In a few days more it will reach a point where it will accommodate several iron furnaces, and carry down their product and bring up their supplies. When completed to Oak Hill, about 36 miles from Portsmouth, its tonnage will probably be—

Pig Iron, 10,000 tons, at $1 75	$17,500
Merchandise, and supplies for furnaces, 2500 tons, at $1 75	3,750
Coal, 40,000 tons, at 80c	32,000
Other articles of every kind	5,000
Passengers and mail	5,000
	$63,250

When completed to Jackson, of course these earnings will be materially increased. The distance from Portsmouth to Jackson is 45 miles.

From Jackson to Newark the distance will not materially vary from 90 miles. The whole country from Oak Hill to Newark, in point of fertility, is above ths average in the State of Ohio. Though sparsely settled as yet, it is capable of sustaining a very dense population, and offers more inducements to the enterprising capitalist than any other part of the west.

In addition to a productive soil and healthy climate, its mineral resources are incalculable. For iron ore and bituminous coal, it will compare with the most favored country on the globe. Several of these coal beds are found to be 15 to 30 feet in thickness. The beds of ore from 8 inches to 7 feet in thickness. The line of road traverses the axis of this great mineral region, nearly 100 miles.

As to quality, I believe there is no better bituminous coal in the world than is to be found on the line of this road. In every large vein there is a portion entirely free from sulphur, with little bitumen, that burns freely and leaves but a small residuum, in a fine ash. This, it is supposed by those having experience, will answer in its raw state for smelting iron.

Large quantities of Cannel coal are found on this line, perfectly pure, which has been used for smelting iron, mixed with charcoal, with success.

To smelt with coal requires furnaces properly constructed, and when the structure is adapted to the use, the number of furnaces will be increased vastly. Probably 100 furnaces will be operated along or near the line of this road, producing 200,000 tons of pig iron annually.

Of course in a country so extensive, the quality of the ores differ in richness and kind of product; but a fair average of calcined ore, ready for the furnace, is not far from 60 per cent.

As to quantity, it may be said to be exhaustless. In 1837, Prof. Briggs, of the Geological corps, under authority of the State, examined this country, and in his report to the General Assembly of 1837, and 1838, (p. 93,) he says: "At a very low calculation of the amount of good iron ore in the region which has this season been explored, it is equal to a solid unbroken stratum, 60 miles in length, 6 miles in width, and 3 feet in thickness. A square mile of this layer being equivalent in round numbers to 3,000,000 cubic yards—when smelted will yield as many tons of pig iron. This number mul-

tiplied by the number of miles contained in the stratum, will give 1,080,000,000 tons, which from these counties alone, will yield annually for 2,700 years, 400,000 tons of iron, equal to the greatest amount made in England previous to the year 1829.

From this estimate, which it is believed is much too low, it appears that the iron ores of this portion of the State are sufficient to supply, not only all domestic demands for ages, but to form an important article of commerce with other States."

In 1838, when this country was examined by Prof. Briggs, a large portion of it was an unbroken wilderness. Now, thorough and more recent examinations of the country have not only confirmed the facts stated by him, but extended the iron region far beyond the limits mentioned by him, and developed veins or beds which to him were unknown.

The first iron furnace established in that region, was in 1826. Since when, in Ohio, Kentucky and Virginia, within 40 miles of the southern terminus of this road, nearly 60 furnaces have been erected, and are in operation.

The agricultural resources of Jackson, Hocking, Vinton and Perry counties, are of no mean character. Vinton is well adapted to grazing, and large herds of cattle are annually driven from this county. Wheat, corn and hay are abundant here, but remote as it is from any commercial facilities, they have no market to encourage these productions beyond the demand for home consumption.

This road is an extension of the Sandusky City and Newark railroad; and when the chain is complete, will be one of the most important commercial thoroughfares in the Union. North of Newark there is no mineral coal; and as the forests are rapidly disappearing, this fuel must come in to supply the demand of nearly one million of people. The south will probably require 250,000 tons of this coal, to used at Portsmouth, and along the course of the Ohio river, and even down to New Orleans. An equal quantity will be required to the north and northwest, for the supply of the country intermediate from the coal region, to the lakes, and for the towns and cities along the lake shores. The port of Huron, one of the lake termini of the Mansfield and Sandusky railroad, has remarkable facilities for transhipping coals and freights to vessels and boats navigating Lake Erie.

Within a very short time, the tonnage of iron produced along the line of this road will be immense. If the price of iron continues remunerative, within five years the quantity will probably approximate 100,000 tons. Add to this the agricultural products from the country south of Newark, and the traffic of this road will be swelled to an amount scarcely paralleled by any other road in America.

The passenger receipts will be no small element of its earnings. So large a traffic will bring a great number of persons with their property over the road; and a country so abundant in resources will soon have a large and active population drawn hither, who will transact their business along the line.

At Portsmouth the road connects with the Maysville and Big Sandy railroad, which will introduce it to the great system of southern railways leading to the Gulf of Mexico and to the southeastern Atlantic cities. The distance from New Orleans, by this line, to Lake Erie, will be shortened more than one hundred miles over any other line in contemplation. All this great chain of southern railways is now in progress. Some of the links are nearly completed, others under contract, and I believe every one is located and the means provided for construction, from Portsmouth to Mobile, New Orleans, Savannah, Charleston and Norfolk.

Such are the prospects of the Scioto and Hocking Valley railroad, and such the country it proposes to occupy. D.

Newark, Ohio, November 18, 1852.

Journal of Railroad Law.

THE TIME TABLE.

It has recently been decided in England, by the County court of Hull, in the case of *Raikes vs. the York and North Midland Railway Co.*, that if a railway company, through negligence, fail to comply with the undertakings of their time table, they become liable to passengers for such damages as they may have incurred in consequence of their being delayed in reaching their points of destination.

A like decision has also recently been rendered in Scotland.

What would be the decision in case a railway company should fail to fulfil their undertaking, not from negligence, but from the *impossibility* of so do the train of another company sooner than any engine could enable them to do. In such a case, a railway company may be no less liable than in case of negligence, for a party should only promise to do what they can do.

The charge of the judge in the case first above mentioned, is in substance as follows:

"This is a complaint entered by Mr. Raikes to recover such damages as you may say he has sustained in consequence of the breach by the defending? As, for example, if they should promise to meet ants of a contract in which they engaged, as he says to take him from Hull to London; and I am of opinion such a contract was entered into; for I don't think that their liability ends at Milford. It is impossible to know what arrangements different railway companies may have entered into between themselves; you can only know by their acts. These defendants advertise that passengers can proceed by the train leaving Hull at 8 45 to London, arriving there at 3 20 P. M. It is for you to say whether Mr. Raikes by paying his money and receiving in return a piece of pasteboard, entered into contract, and therefore made it binding on the company that they should fulfil the terms of the offer in their advertisement, namely, to convey him and his son to London for £1 14s. 6d. He paid £1 14s. 6d. and received one and a half pieces of pasteboard, and you will have no difficulty in finding that that was a contract to carry him to London. But, I musi tell you, that if they had not put in that time bill, we could not have proved the extent of this contract, which is, that they will use their best endeavors to carry out what they have advertised; that is to say, that the contract shall not fail from any neglect or mismanagement on their part. I am of opinion that there was a contract between Mr. Raikes and the York and North Midland railway company to carry him to London by the train leaving Hull at 8 45 A. M. and reaching King's Cross station at 3 20 P. M. A variety of accidents might inevitably prevent the arrival of the train in London at the stipulated time. The true question is, whether or not the railway company have been guilty of negligence; therefore, it will be for you to say whether there is any evidence of negligence on their part."

The Judge then went over the evidence in order to see if there was any unnecessary delay in making stops. If no negligence on the part of the defendants should be discovered, he directed a verdict to be entered for defendants.

Verdict for plaintiff—for £5.

NEGLIGENCE.

The question as to what constitutes negligence is closely dependent upon the circumstances of each particular case.

In the case of *Hanny vs. New York and Erie R. R. Company.* The New York Superior court has recently again decided that where the carelessness and imprudence of the person injured by a collision on a railway, contributes to the injury, an action for damages cannot be sustained against the company. The plaintiff was driving at a rapid rate across the track of a railroad, and it appeared that near the point of intersection a high embankment between the railroad and highway rendered it impossible for a person on the highway to see the cars coming until he gets upon the track, and it was held that such rapid driving at such a place constitutes a degree of negligence that defeated any right of recovery for damages in consequence of collision.

The court also held that where there is no conflicting evidence on the question of negligence, or where the proofs are such as show beyond a doubt that plaintiff has been negligent, the judge is under no necessity of submitting the matter to a jury. It is the duty of the court to withdraw the question from the jury and to non suit the plaintiff.

DELIVERY.

Delivery to a carrier may be *actual* or it may be constructive. *Merrick vs. Hartford and N. H. railroad Co.*, 20 *Conn.* 35.

Where goods were delivered in the *usual manner* for transportation by a common carrier, by being deposited upon his private dock, which was in his exclusive use for the purpose of receiving goods to be transported by him, it was held in the above mentioned case that such delivery was a good delivery to the carrier and sufficient to make him liable for the loss of the goods, although neither he nor his agent received any express notice of the fact of the goods having been so deposited. The carrier, virtually, by his wonted course of business, agreed that goods might be so deposited, without special notice.

Albany and Susquehanna Railroad.

The subscribers, the Albany directors of the Susquehanna railroad company, beg to state to their fellow citizens the fact of the road having been so far located as to be ready for contract, and that bids for its construction have been invited. The confidence of the directors in the value of the stock of this road, as well as in the great and wide-spread benefits that will accrue to Albany from its construction, is unabated.

As yet, but a small proportion of our fellow-citizens to be benefitted by this enterprise have been called upon. Most of those seen have responded to our appeals in the most liberal manner, which has greatly encouraged us to persevere in this arduous undertaking. The country has about made up the sum expected from that source. About $75,000 is yet required to make up the amount allotted to Albany. This sum we want to secure by the first of December, the day the bids for the construction of the road are to be opened, so that contracts may be immediately made. We have faith to believe, should Albany *now* promptly respond to this our last appeal, the road can be placed in running order during the year 1854.

We trust no citizen, real estate owner or engaged in business, having made up his mind that this great work is to benefit his estate or business, will desire to evade his responsibilities in this matter, or permit his neighbor to assume responsibilities for his benefit.

The farmers on the line, almost to a man, have

taken stock; let all classes in Albany, according to their ability, do the same, and an extensive copartnership between the country and Albany will be formed that will, it cannot be doubted, be of great advantage to both.

EDWARD C. DELEVAN, JOHN N. WILDER,
WM. V. MANY, FRANKLIN TOWNSEND,
ROBERT H. PRUYN, JAMES KIDD.
E. CORNING, JR.

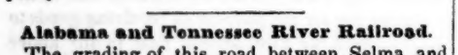
The above appeal puts the connection between real estate and its value as affected by railroads in the true light. It is almost a piece of dishonesty on the part of the owners of property to shirk their fair quota to a contribution towards these works, when a larger profit than that derived from the roads themselves, ensure to the proprietors of the houses and lots of the cities to which they lead. Of course there are instances where a subscription is impossible, but the meanness is akin to dishonesty of large holders of real estate, who will not subscribe to the building of a railroad when they know that the appreciation is certain, and will be secured to them from the outlay of a neighbor's capital. To be sure there is no law but that of public opinion, and we are glad to see an appeal made to shame this class.

The Albany Evening Journal, promptly seconds the directors, and justly remarks that this road will make Albany the depot of the trade of a vast section of country of great agricultural and mineral wealth, dotted with thriving villages and thickly interspersed with manufacturing establishments. It will not merely enable Albany to hold her own against the heavy drafts which have been made upon her trade by the opening of other avenues, but it will secure a business ten fold greater than that which has been diverted from her, and keep the population on the advance in numbers and prosperity.

Alabama and Tennessee River Railroad.

The grading of this road between Selma and Montevallo is completed, and the laying of the track is progressing rapidly.

Notice to Contractors.



SEALED PROPOSALS will be received at the Office of the New Orleans, Jackson and Great Northern Railroad Company, in the city of New Orleans, until the 30th of November next, for the grading, masonry, piling and bridging of that part of their road from Lake Maurepas, to the line of the State of Mississippi, a distance of 51 miles.

Also, for the masonry required on the first 36 miles of road from the city of New Orleans to the Lake, at the South Pass Manchac.

The first 9 miles of the section to the State Line, is through the Lake swamp, and includes the piling and bridging (with one draw) of the South and North Passes, the remainder is through a healthy fine country, which, with the contemplated lettings of the remaining 100 miles to Jackson, Mississippi, render this work well worthy the attention of Northern Contractors.

Payments will be made in cash, with 20 per cent retained until the completion and acceptance of the work.

Satisfactory evidence of ability will be required with the proposals.

Plans and profiles will be ready for examination ten days before the letting.

JAMES CLARK, Chief Engineer.
New Orleans, October 16th, 1852.

Change of Hours.

MONTREAL & NEW YORK AND Plattsburgh and Montreal RAILROADS.

☞ *Open through from Plattsburgh to Montreal.* ☜

FALL AND WINTER ARRANGEMENT.

ON and after Monday, November 1st, 1852, and until further notice, Passenger Trains

LEAVE MONTREAL FOR PLATTSBURGH at 11·45 A. M. and 4·15 P. M.
Arrive at 2·46 and 7·37 P. M.
" " FOR OGDENSBURGH at 11·45 A. M.
Arrive 7·15 P.M.
" PLATTSBURGH FOR MONTREAL at 12·45 and 7·15 P. M.
Arrive at 3·50 and 9·57 P. M.
" " FOR OGDENSBURGH at 7·30 A. M. and 12·45 P. M.
Arrive at 1·15 and 7·15 P. M.

Trains connect at Montreal with Steamers for Quebec, and the St. Lawrence and Atlantic Railroad for Sherbrooke and intermediate stations.

Trains connect at Mooers Junction with Northern (Ogdensburgh) Railroad for Ogdensburgh and Lake Ontario Steamers for Lewiston, Niagara Falls and Upper Canada, and all ports on the Western Lakes.

Trains connect at Plattsburgh by Steamer to Burlington with Rutland and Burlington Railroad and connecting lines for Troy, Albany, New York and Boston, and all intermediate stations. Also with steamers for Whitehall to the Saratoga and Washington Railroad, and connecting lines of road to Troy, Albany and New York.

Passengers will find this route unequalled for comfort and dispatch, and attended with less fatigue and delay than any other. It possesses moreover the advantage of a short Ferriage of only *fifteen minutes* across the River St. Lawrence at Caughnawaga, which has never been known to freeze, and can be confidently relied upon at all seasons of the year.

☞ Freight Trains run daily each way.
For particulars see Freight and Passenger Tariff.
BAGGAGE *checked through.*

ISAAC B. CULVER, Superintendent.

To Contractors.

SEALED PROPOSALS are requested for the Graduation, Masonry, Timber Bridging, and Track-laying of the Albany and Susquehanna Railroad, extending from Albany to Binghamton: distance 140 miles.

The line will be ready for the inspection of Contractors on the 16th November, and proposals will be received until the 8th December.

The work will be divided into sections of about five miles each, and Contractors can include in their proposals as many of these as may suit their convenience.

The Company reserves the right to accept of such proposals as in their judgment will best secure the prompt construction of the road.

All proposals to be sealed and indorsed: "Proposals for the Albany and Susquehanna Railroad," and directed to J. P. Kirkwood, 116 State street, Albany.

The plans and profiles can be seen at the Engineer's Office, 116 State street, Albany, on and after the 16th of November, where further information can be obtained.

E. C. DELAVAN, President.
JAMES P. KIRKWOOD, Engineer.
Albany, 116 State Street.

Volcano Quartz Mining Co.

VOLCANOVILLE, EL DORADO COUNTY,
CALIFORNIA.

BOOKS for subscription to $75,000 of the stock of this company are now open at the office of the company, 78 BROADWAY, New York.

The uncommonly rich claims of this company hold out inducements, to those who are disposed to invest capital in quartz mining in California, not surpassed, if, indeed, *equaled*, by those of any other company in that state.

The extraordinary richness of our quartz, as was witnessed by *thousands* at the late *Fair of the American Institute*, and the extent of our claims, together with the peculiarly favorable location for economical working upon a large scale, will ensure the *most ample* and *satisfactory* returns upon the investment.

It is well understood by practical men that, with machinery working *twenty tons* of quartz, paying *two cents* per lb., large profits will be realized upon each day's work. It is the intention of the company to obtain machinery sufficient to work *fifty* tons per day, and to work it in the most economical manner, by which they feel confident of being able, from their stock which will yield from *two cents* to *twenty dollars* to the lb., to make returns to their shareholders which will not only satisfy, but surprise them.

It will be seen, by reading the pamphlet, containing the *charter*, the laws of California, and the details of our plans of operation, that our estimates are based upon *two cents* per lb., and the expenses of working the mill are but, at present *high prices* for labor, while it is well known to all who reflect upon the matter that, as the cost of labor shall be reduced, the income will be materially enhanced.

If we work 40 tons per day, and yet *two cents* per lb., it will yield $16, while *three, four, or five* cents per lb., would give a proportionate increase of receipts, the expenses of working the mill would not be increased a dollar, and will be less than $470 a day.

Subscriptions can be made by mail, enclosing, *ten* per cent on the amount, of the balance, *twenty* per cent to be paid on the 29th of Nov. inst., and *seventy* per cent on the 29th day of December next, when certificates of stock will be issued.

Pamphlets, containing the statute of California in relation to corporations, the rules and regulations of our locality, the charter and by-laws of the Co., together with much other interesting and useful matter, including a map of a portion of the northern mining regions may be had gratis at the office of the company, No. 78 Broadway, or by mail on application, (postage paid.)

TRUSTEES OR DIRECTORS.

NICHOLAS DEAN,
ROBERT M. STRATTON,
NATHANIEL CONKLING,
D. K. MINOR, } of New York.
JOB S. HEARN,
SUMNER WHITNEY,
BENJAMIN C. DONNELLAN,
JAMES CLOWDSLEY
JAMES ALLEN, } of California.

D. K. MINOR, President,
JAMES CLOWDSLEY, Vice President.
NICHOLAS DEAN, Treasurer.
NATHANIEL CONKLING, Secretary.
New York, Oct. 25, 1852.

Oxford Furnace, N. J.

ESTABLISHED A. D. 1743.

THE Subscriber manufactures and keeps constantly on hand for sale, every variety and size of Railroad Wheels, made from the celebrated Oxford Iron. All orders addressed to CHAS. SCRANTON, Oxford Furnace P. O., will be attended to promptly.

Sept. 11, 1852. 1y*

Railroad Iron.

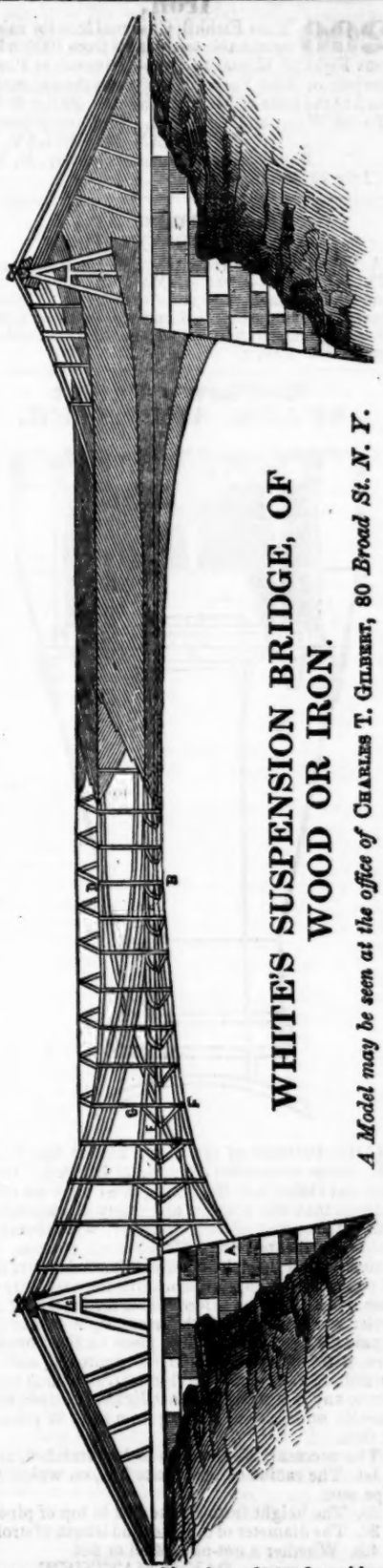
1400 TONS Railroad Iron, weighing about 55 lbs. per yard, of an approved pattern, now in bond, for sale by

P. CHOUTEAU, Jr., SANFORD & CO.,
No. 51 New street.

November 4, 1852. 4t

Huger, T. P.,

Northeastern Railroad, Charleston, S. C.



WHITE'S SUSPENSION BRIDGE, OF WOOD OR IRON.

A Model may be seen at the office of CHARLES T. GILBERT, *80 Broad St. N. Y.*

Length of span, anything short of 1,500 feet with perfect safety for every kind of travel. The above cut represents a Wooden Bridge with a roof. The arrangement for the Iron Bridge is such as to avoid all the bad effects of changes of Temperature. For a full description, see pamphlets; for further information, respecting models, rights, &c., apply, by letter or otherwise, to AMMI WHITE, or JOSHUA P. THAYER, Proprietors, *Cambridgeport, Mass.*
Office next door to the Athenæum.

Mississippi and Atlantic Railroad, from Terre Haute to St Louis.

BOOKS OF SUBSCRIPTION TO THE CAPITAL STOCK OF THE MISSISSIPPI & ATLANTIC RAILROAD COMPANY, an organization under the General Railroad Law of the State of Illinois, for the construction of a Railroad from Terre Haute, Indiana, to St. Louis, Missouri, will be opened under the direction of Messrs. WINSLOW, LANIER & CO., at their office, No. 52 Wall street, in the city of New York, on SATURDAY, the 6th day of November, 1852, and remain open until the stock of said company shall be subscribed.

The Capital Stock of said Company is TWO MILLIONS OF DOLLARS, of which Four Hundred and Seventy Thousand Dollars has been taken, leaving the sum of One Million Five Hundred and Thirty Thousand Dollars open to present subscription.

This stock has been divided into shares of FIFTY DOLLARS each.

TEN DOLLARS per share will be required to be paid at the time of subscription, and the remainder will probably be called through the whole of the year 1853.

Stock payments will draw seven per cent interest —payable on the first days of each July and January in the city of New York, until the completion of the work, when regular dividends will be made from the earnings of the road.

The first payment of interest will be made on the first day of July, 1853.

Books for the transfer of the stock will be opened and permanently kept in the city of New York, upon which the stock will be transferable after the payment of the first instalment.

This road is 170 miles in length, of which over 165 miles is straight line.

On over two thirds of the line the grades are under twenty feet to the mile, and the maximum grade is less than forty feet.

It is the last uncompleted link in the great chain of railroads from New York, Boston, Philadelphia and Baltimore to the city of St. Louis.

It is the most direct route, and must be a valuable road, and its stock a good investment.

It is designed to complete the road within eighteen months to two years; and it will be built under the personal supervision of the President, JNO. BROUGH, Esq.

Messrs. Winslow, Lanier & Co. will furnish maps of the connections, profits of the route, and the prospectus of the company, containing full particulars as to the organization and prospects of the work, upon application at their office.

SALMON A. PHELPS,
MICHAEL G. DALE,
NATH. M. McCURDY,
DEAN ANDREWS,
Commissioners.

WINSLOW, LANIER & CO., Agents.
New York, November 1st, 1852. 2t

Notice to Bridge Builders.

Office East Tennessee and Virginia R.R. Co.
Jonesborough, 28th October, 1852.

PROPOSALS will be received at this office until the 15th day of December next, for the superstructure of three single track Railroad Bridges, two across the Holston river, and one across the Watanga river, all on Pratt's or Howe's plan. The length of the bridges are 200, 300, and 400 feet respectively. The one of 400 feet is to be built with a draw of 50 feet. The bids must include covering, sideings, painting, and everything necessary to complete said Bridges.

The Board claim the right to reject the whole of said bids, if none are found to be satisfactory.

Proposals to be addressed to the undersigned.

By order of the Board.

WM. G. GAMMON,
Sec'y and Treas. E. T. & Va. R. R. Co.

Dudley B. Fuller & Co.,

IRON COMMISSION MERCHANTS,
No. 139 GREENWICH STREET,
NEW YORK.

Utica and Schenectady Railroad Office,
May 5, 1847.

Mr. DAVID MATTHEW:

Sir:—In regard to the "Spark Arrester." several kinds have been tried; but yours, as you left it, has been constantly in use. We have your patent on fifteen engines, and use no other kind. Nothing tried here has been so acceptable to us.

Respectfully your ob't serv't,
WM. C. YOUNG,
Supt. and Eng. U. & S. R. Co.

—

Locomotive Works, Philadelphia,
February 2, 1850.

MR. DAVID MATTHEW, Vulcan Works, Baltimore:

Dear Sir:—Your letter of 30th ultimo reached us only this morning, and in reply we would state, that we have not had much opportunity of judging of the merits of your Pipe in comparison with others, but that on the Utica and Schenectady Railroad, where we have a number of our engines running, your Pipe is exclusively used, and preferred to all others. Yours, very truly,
NORRIS, BROTHERS.

—

Patterson, N. J., Feb. 6, 1850.

MR. DAVID MATTHEW, Baltimore:

Dear Sir:—Your favor of the 31st January is received. When we used your Spark Arresters on our locomotives they gave entire satisfaction, and we should have continued to use them if we could have procured them; but the gentleman at Catskill, who, we understood, had made arrangements with you respecting the sale of the right to use them, refused to furnish them, except there was an agreement made for selling the right to the whole road. This we could not do, which compelled us to procure our Spark Arresters elsewhere.

We have often been applied to for your Spark Arresters; but as we could not procure them, we have been obliged to furnish others.

Your Spark Arresters have been highly spoken of by all those that we know who have used them, and we think they are equal to any in use.

Very respectfully,
ROGERS, KETCHUM & GROSVERNOR.
Per S. J. ROGERS.

—

Utica and Schenectady Railroad Office,
Schenectady, Feb. 19, 1850.

DAVID MATTHEW:

Dear Sir—I received yours of January 25th, in reply to smoke-pipes, we consider the Spark Arrester of yours, used by us, far superior to any in use.

Respectfully, your obedient servant,
C. VIBBARD, Sup't U. & S. Railroad.

—

Mr. DAVID MATTHEW—

Dear Sir:—In reply to your enquiries I have to state, that I have been engaged in the manufacture of your "Spark Arrester and Smoke-Pike for steam engines," for over ten years last past.

I have no hesitation in saying, that your "Spark Arrester is the best that has ever been in use in this country. I have seen all others, or nearly all others tried, but your invention, as patented 31st December, 1840, possesses all the requisites for railroad and other uses in a degree decidedly superior to them all. I am now employed as an engine builder in the establishment of the Hudson River Railroad, and after a careful trial of all the spark arresters and pipes most esteemed in this country, we have found yours to be decidedly the best, and, in this opinion I am supported by the chief superintendent of motive power of that road, who has so expressed himself to me.

I am, very respectfully, your ob't serv't,
JOHN TAYLOR.

—

DAVID MATTHEW, Esq:

Dear Sir—Your "Patent Spark Arrester," has been in use on our Locomotives since 1840, during which time we have tried several of a different construction. We can recommend yours as being the most effective and economical of any used by us. Little or no inconvenience from sparks is suffered by passengers; nor is the draft obstructed. From the best estimate we can make they can be kept in repair for about ten dollars each per year.

C. VIBBARD, Superintendent.
V. BLACKBURN, Mast. Ma.

Office of the Syracuse and Utica R. R. Co.,
Syracuse, August 7, 1851.

My Dear Sir:—I am glad that you obtained your right of building Spark-Arresters, and most certainly it is the best in use, and generally approved of. I think they are using them pretty generally on the Hudson River R. R., and all the other patents which have been made since the date of yours, are copies in some degree, from yours. Anything that I can do to forward your interests in this matter will be done with cheerfulness. I think of going to Philadelphia this summer, and shall call on you.

Yours, very truly, D. BEGGS.

—

Utica and Schenectady Railroad Office,
Schenectady, August 30th, 1851.

This is to certify that Mr. David Matthew's Spark Arresters have been used on a number of the locomotives constructed by the Newcastle Manufacturing Company. They have, in all cases, given entire satisfaction. With them the exhaust pipes can always be made sufficiently large to ensure a full discharge of steam; while at the same time, they afford the necessary draught, and completely stop the sparks. I cheerfully recommend them to the attention of railroad companies and manufactures of locomotive engines.

ANDREW C. GRAY,
Pres't Newcastle Manufacturing Co.

—

Albany, September 8th, 1851.

Gen. W. SWIFT:

Dear Sir—This will serve to introduce to your favorable notice Mr. David Matthew, who is the inventor, and holds the patent for a Spark Arrester, which has been used by many of our railroads on their locomotives. I consider it a valuable improvement, and do not doubt but Railroad Companies will generally use it. Yours respectfully,
ERASTUS CORNING.

—

Office Hudson River Railroad,
New York, February 14, 1852.

D. MATTHEW, Esq.,

Dear Sir—I am so little acquainted with the merits of different kinds of Spark Arresters, that I do not feel competent to give an opinion for publication. I know that your Arrester is a good one, and has been highly esteemed on the roads where I have been employed. But I have not sufficient practical knowledge of the subject, to venture any comparison of its merits with other kinds of arresters.

Yours truly, O. H. LEE, H. R. R.

—

Office of the Hudson River R. R.,
31st st., New York, May 16, 1852.

Mr. DAVID MATTHEW:

Dear Sir—I have been acquainted with your Spark Arrester since its introduction, and have carefully watched its operation in comparison with many others. I have no hesitation in saying, that as a Spark Arrester without diminution of draft, it has no equal in use. I have been able to use a much larger exhaust pipe than with other pipe, and, from experiments recently made, I am satisfied that the Cap, or Spark Arrester, is no impediment to the draft of the open chimney. Very respectfully,
HENRY WATERMAN,
Superintendent of Motive Power.

—

I have this day purchased the right to use the above pipes on the Saratoga and Washington railroad, and concur in all that Mr. Sargent has said of them. J. VAN RENSSELAER,
Superintendent S. & W. R. R.
Saratoga Springs, May 22d, 1852.

—

Albany and Schenectady Railroad, Albany.

Having used Mr. Matthew's Spark Arrester on our engines, and considering it a valuable invention, we have purchased the right to use it on our road. E. C. M'INTOSH, President.

—

Schenectady and Troy R. R. Office,
Troy, July 20th, 1852.

I have this day purchased the right to use Mr. Matthew's Spark Arrester on this road; I have been acquainted with this Spark Arrester for ten years, and consider it the best that has come under my notice. EDWARD MARTIN,
Superintendent S. and T. R. R.

Office Rensselaer and Saratoga Railroad,
Troy, May 22d, 1852.

This may certify that I consider the Patent Locomotive Smoke Pipes and Spark Arrester of D. Matthew's as more economical and safe than any now in use. It is more durable, and throws less fire and cinders, without impairing the draft, they have been in constant use upon the different roads under my charge since 1841, as have all the other various kinds now used, and after this long experience and careful observation, I am entirely satisfied that those invented by Mr. Matthew are decidedly the best, and I have secured the right to use the same by this company, and the Saratoga and Schenectady railroad company, by purchase made yesterday. L. R. SARGENT, Superintendent.

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I have this day purchased of Mr. Matthew the right to use his Spark Arresters on the Syracuse and Utica railroad. I believe it is the best pipe there is. JOHN WILKINSON,
President S. & U. R. R.
Syracuse, July 16, 1852.

—

I have this day purchased of Mr. David Matthew the right to use his Patent Spark Arrester on the Rochester and Syracuse railroad, during its present term, and renewal or extension, believing it to be the best Arrester now in use.

CHARLES DUTTON, Supt.

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Superintendent's Office
Buffalo and Rochester Railroad Co.,
Buffalo, July 29, 1852.

David Matthew, Esq., has this day conveyed to this company the right to use his Spark Arrester patented in 1840. It has been in use on this road for some years past, and gives better satisfaction than any other improvement claiming the name of Spark Arrester. HENRY MARTIN,
Superintendent, J. W.

—

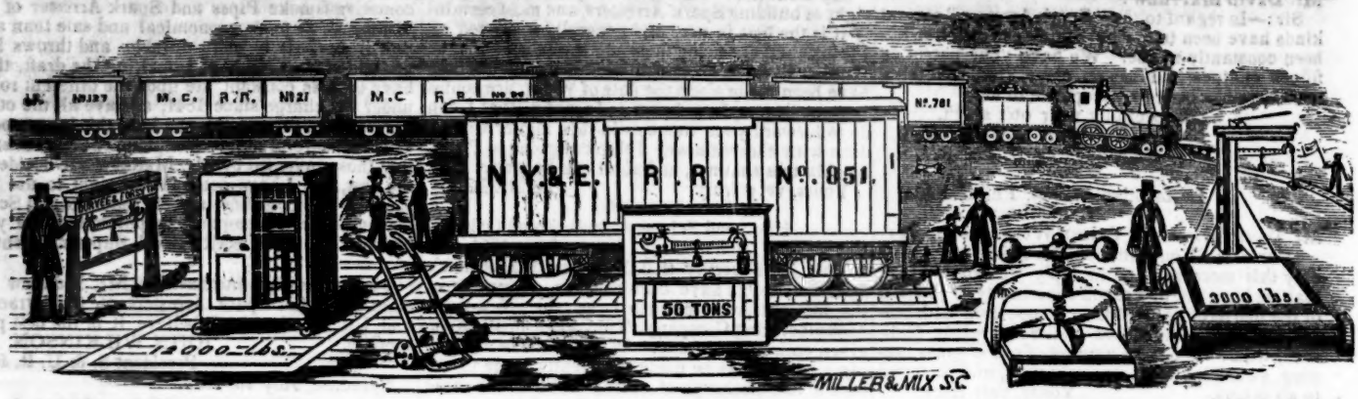
☞ REFERENCE is made to the following Gentlemen and Companies, with whom Agencies have been established for the sale of the Spark Arrester, and rights under the Patent:—

Erastus Corning, Esq., Albany, N. Y.; Messrs Rogers, Ketchum and Grosvenor, 74 Broadway: New York city, and at their Works in Patterson, N. J.; The New Jersey Locomotive Machine Company, at Patterson N. J., James Jackson, President,—address also at Patterson, Messrs William Swinburne & Co., Locomotive Builders, Patterson, N. J.; Messrs. Norris, Brothers, Philadelphia, Pa.; M. W. Baldwin, Esq. do; A. C. Gray, Esq., Newcastle Manufacturing Company, Newcastle Delaware; the Schenectady Locomotive Iron Works, Schenectady, N. York; The Boston Locomotive Works, Boston, Mass.; The Taunton Locomotive Manufacturing Company, Taunton, Mass.; Wm. Cundle Patterson, N. J.; Clute & Brothers Schenectady; Peter Smith, Albany, N. York; Thomas Snook, Rochester, N. Y.; Nashville Manufacturing Company, Nashville, Tenn.; Niles & Co Cincinnati, Ohio; Cuyahoga Works, Ohio City.

All applications for the use of the above Patent Rights, etc. for the New England States, and New York, East of the Hudson River, to be made to H. VAN KURAN, Boston Locomotive Works, Mass., or to D. MATTHEW, Patentee, Philadelphia, Pa.

NOTICE.—Railroad Companies getting new engines, can have Matthew's Patent Spark Arrester placed on them, by applying to the manufacturers, so that the apparatus costs them nothing but the patent right. This they will find of great advantage to them. D. M.

ROCHESTER SCALE WORKS.



DEPOT SCALE, 6 TONS, AND FIRE KING SAFE. **TRACK SCALE, 100,000 LBS.** **RAILROAD MANIFEST PRESS.** **IRON SCALE, 1 1-2 TONS.**

DURYEE & FORSYTH, MANUFACTURERS, ROCHESTER, N. Y.

THE Subscribers are prepared to furnish upon order, RAILROAD SCALES of superior quality at *reduced rates*; Warehouse Trucks: Manifest Presses and Books; also, COVERT'S FIRE KING SAFES.

It has been decided by Scientific Gentlemen, that our Scales are preferable to all others, from the fact of their being made stronger and more substantial, more material used in the construction of the Levers, which renders them much safer and more durable.

OUR MOTTO is, to excel in the articles we manufacture; *therefore the best materials are used. The best model and plans are adopted*, to make them the most desirable for the market.

All the Scales manufactured at this establishment are made under the immediate supervision of our Mr. DURYEE, who is a practiaal mechanic, of long experience in the manufacture of weighing machinery, and can be relied upon as being as '*Durable and Accurate*' as any scales in the market; the bearing edges are made of the best *Cast Steel*, well tempered, and great care taken in their adjustment.

A large majority of the Track, Depot and Portable Scales in use by the New York and Erie Railroad Co. were furnished by us. Also, the Michigan Central Railroad is furnished exclusively with our Scales.

The facilities that we have for manufacturing with new and improved machinery, and the central position we occupy for shipping to the different markets, enables us to undersell other makers of similar scales from 10 to 15 per cent.

All orders will receive prompt attention.

DURYEE & FORSYTH.

GENERAL DEPOTS:

Wm. T. Pinkney, Jr.,	Agent,	166 Pearl st., N.Y.
Raymond, Ward & Co.,	"	Chicago, Ill.
Mumford & Hosken,	"	Lafayette, Ind.
Crawford & Reynolds,	"	Cleveland, Ohio.
Joseph E. Elder,	"	St. Louis, Mo.
Byram, Millier & Shreve,	"	Louisville, Ky.

The following Railroads have been furnished with our Scales and Wares, exclusively or nearly so:

New York and Erie,	Cleveland and Columbus,
New York and Harlem,	Michigan Central,
New York and N. Haven,	Mad River and Lake Erie,
Sandusky, Mansfield and Newark,	Paterson and Hudson R.,
Indianapolis and Bellefontaine,	Cincinnati, Hamilton and Dayton,
Syracuse and Utica,	Buffalo and Rochester,
Columbus and Xenia,	Rochester and Syracuse,
Lexington and Frankfort,	Louisville and Frankfort,
Hillsboro' and Cincinnati,	Chicago and Galena,
Greenville and Miami,	Dayton and Western,
Cayuga and Susquehanna,	Central Ohio,
Rome and Watertown,	Chemung,
Rutland and Washington,	Illinois Coal Company,
Erie and State Line,	Buffalo and State Line,
Rochester, Lockport and Niagara Falls,	Cleveland and Pittsburg,
	Michigan Southern,
	American Express Co.,

The Hon. Canal Commissioners, and Engineers of the Erie Canal Enlargement.

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Michigan Central R. R. Office,
Detroit, May 10th, 1852.

MESSRS. DURYEE & FORSYTH,
Rochester, N. Y.,

Gentlemen: We have in use upon our road nearly one hundred of your Scales, comprising most of the sizes ordinarily in use upon railroads, many of which have been in service four or five years.

They have kept in adjustment well, retain their sensitiveness, and we regard them as strong, accurate, reliable, and in every respect satisfactory.

Respectfully yours,
J. W. BROOKS, Supt.

—

New York and Erie Railroad,
Supt's Department Gen'l Freight Office,
New York, June 21st, 1852.

To MESSRS. DURYEE & FORSYTH,
Rochester,

Gents: This company have had in use on their road for three years past about fifty of your Railroad Track, Depot and Portable Scales. It affords me much pleasure to assure you that I consider them fully equal to any scale in use on the road, in point of strength, durabillty, accuracy and finish.

I am very respectfully, your ob't serv't,
SAM. BROWN, Gen'l Freight Ag't.

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The following Report was made by the Hon. Canal Commissioners of the Erie Canal Enlargement, to the Legislature of the State of New York, Feb. 3d, 1852.

WEIGH LOCK SCALE.

It is but justice to say that the new Weigh Lock at Rochester abundantly sustains the reputation claimed for it by its worthy and scientific builders.

Messrs. Duryee & Forsyth have constructed for this lock, scales of superior power, and may well challenge comparison with any similar work in or out of the State. The mode of adjustment is so easy and simple, that great certainty is secured in determining large or small weights.

Report on Duryee & Forsyth's Weigh Lock Scale, by the Committee of the State Agricultural Society.

The Committee appointed to examine the Weigh Lock Scale in the City of Rochester, manufactured by Messrs. DURYEE & FORSYTH, of said city, have performed the duty assigned them, and report that they regard it as an admirable piece of mechanism, which reflects great credit on the builders. Length of Scale, 80 feet; width, 20 ft.; height, 32 ft.; weight of scale, 75 tons: capacity of weighing 400 tons.

Considering the weight and strength of the materials used, the delicacy and accuracy of this apparatus for weighing loaded canal boats of the largest class, this scale excites universal admiration. One of the committee tested it when under the pressure of a weight of 219 tons 900 lbs., and it clearly indicated a small additional weight within five pounds.

Any description of this Scale would hardly be intelligible without drawings, which the committee have not at command. It has no equal known to the committee. They recommend that a GOLD MEDAL be awarded to DURYEE & FORSYTH, for the manufacture of an article so important to the protection of the revenue of the Erie canal, and to the accurate weighing of an incalculable amount of private property.

C. DEWEY,
DANIEL LEE.

Rochester Sept. 20th, 1851.

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We have received the Society's FIRST PREMIUMS, DIPLOMAS AND SILVER MEDALS, annually, since 1848, for the best Scales and exhibition. We hav also received the DIPLOMAS and SILVER MEDAL of the American Institue, New York, and DIPLOMA of the Mechanics' Fair in Boston. Also, the HIGHEST PREMIUMS IN MONEY and DIPLOMAS of the Provincial Fairs, Canada, and State Fairs in Ohio and Michigan.

$200,000 SEVEN PER CENT. CONVERTIBLE BONDS OF the NEW-CASTLE and RICHMOND RAILROAD.—The undersigned offer for sale TWO HUNDRED SEVEN PER CENT CONVERTIBLE BONDS for $1,000 each, of the NEW-CASTLE and RICHMOND RAILROAD COMPANY, with Interest Coupons attached, payable semi-annually at the office of the Ohio Life Insurance and Trust Company, in New York. The Bonds are payable at the same place in fifteen years and are convertible into the stock of the company within five years.

These Bonds are secured by a mortgage executed by the Company to George Carlisle, of Cincinnati, and Joseph B. Varnum of New York, Trustees of the road from Richmond in Wayne County, to New-Castle in Henry County, including the superstructure, iron rails, depots, tolls, privileges and franchises of the Company. This mortgage is the FIRST AND ONLY LIEN upon this section of the Road, which is a part of the great Trunk Railroad from Cincinnati to Chicago.

The New-Castle and Richmond Railroad extends from Richmond to Logansport, 103 miles, the whole of which is under contract, and about one thousand hands are now employed on the road.

The total amount of stock subscribed upon the whole road is $509,400. The stock applicable to the construction of the road from Richmond to New Castle is $250,900.

This railroad passes through the most fertile, populous and highly improved part of Ohio and Indiana, and it must become the great route for freight and travel between Cincinnati and Chicago and the Northwest.

The local business alone would be sufficient to make the road profitable. The counties of Indiana through which it runs produce annually more than two millions of bushels of wheat, five millions of bushels of corn, one hundred and fifty thousand hogs, and fifteen thousand cattle, a large part of which must be transported to market on this road.

The iron rails for more than fifty miles of the road have been purchased. Ten miles of the road, from Richmond to Washington, will be completed and in operation in November next, which will make a continuous railroad of about 70 miles from Cincinnati, by way of Hamilton, Eaton and Richmond.

The holders of the bonds will have for ther security the obligations of the company, with subscriptions of stock to the amount of more than half a million of dollars, and a mortgage upon the road from Richmond to New Castle, with the iron rails, superstructure, tolls and franchises of the company.

CARPENTER & VERMILYE, 44 Wall-st.
CAMMANN WHITEHOUSE & Co. 56 Wall-st.